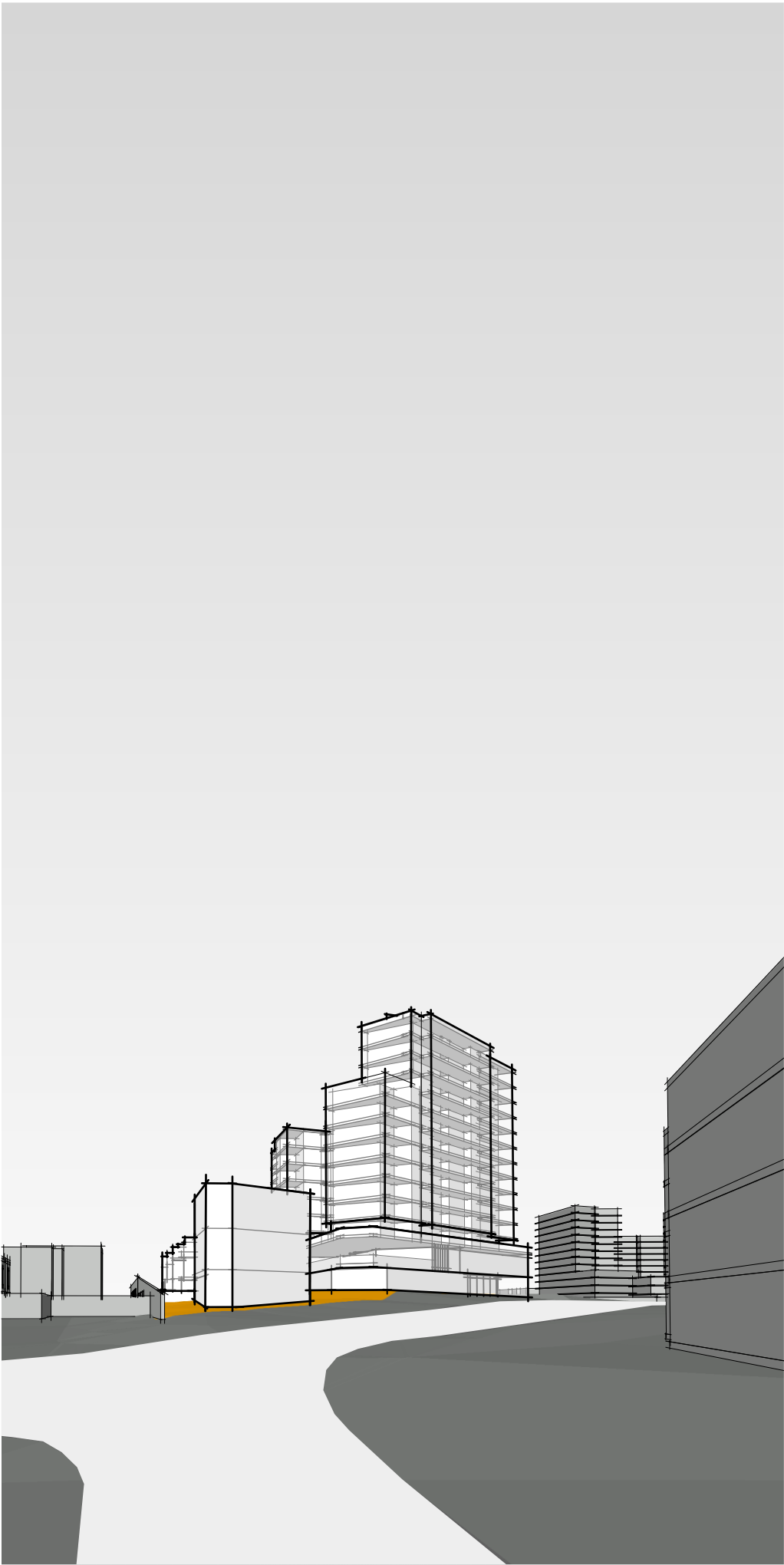


INDICATIVE SCHEME



Revised Indicative Scheme

241 - 245 Pennant Hills Road, CARLINGFORD
September 2021

SUMMARY

YIELD

Residential				
Unit Type	1 bed	2 bed	3 bed	total
Number of Units	5	60	32	97
Percentage	5%	62%	33%	100%

Commercial	
Total Commercial Area	1970 sqm

ADG compliance

compliance	required	complies
cross ventilation	60%	yes - 71% 54 units (out of 76 units) <small>note: cross vent only required in first 9 storeys</small>
solar access	2hrs to 70%	yes - 79% 77 units (out of 97)
no direct sunlight	limited to maximum 15%	yes - 10% 10 units (out of 97)
communal open space	25% of site area / 50% solar access.	yes - 38% principal areas recieve at least 2 hours solar access
deep soil	7% of site area / 6m min dimension	yes - 26%
balcony areas	minimum depth 2m	yes
building separation	12m separation between habitable rooms up to 4 storeys	yes 6m provided to side boundary 12m provided between 3 storey row units and commercial podium
carparking	between 300 - 350 space depending on use of commercial tenancies	yes over 3 or 4 levels
storage	50% of storage provided inside unit	yes
kitchen light & ventilation	back of kitchen - maximum 8m from a window	yes
ceiling heights	min 3.3m mixed use (level 1) min 2.7m to habitable rooms min 2.4m to non habitable rooms	yes yes yes

FSR

Site Area (sqm)	5765
After Road Widening	

Level	GFA (sq m)
Level 00	1707
Level 01	1712
Level 02	1526
Level 03	829
Level 04	845
Level 05	829
Level 06	845
Level 07	829
Level 08	845
Level 09	512
Level 10	403
Level 11	403
Level 12	403
Level 13	403

Proposed GFA	12091
Proposed FSR	2.1 : 1

HEIGHT

Level	Floor to Floor Height
Level 00	5.1
Level 01	4.3
Level 02	3.1
Level 03	3.1
Level 04	3.1
Level 05	3.1
Level 06	3.1
Level 07	3.1
Level 08	3.1
Level 09	3.1
Level 10	3.1
Level 11	3.1
Level 12	3.1
Level 13	3.5
Roof Feature Zone	2.0

Proposed Building Height	49 m
Proposed No. Storeys	14

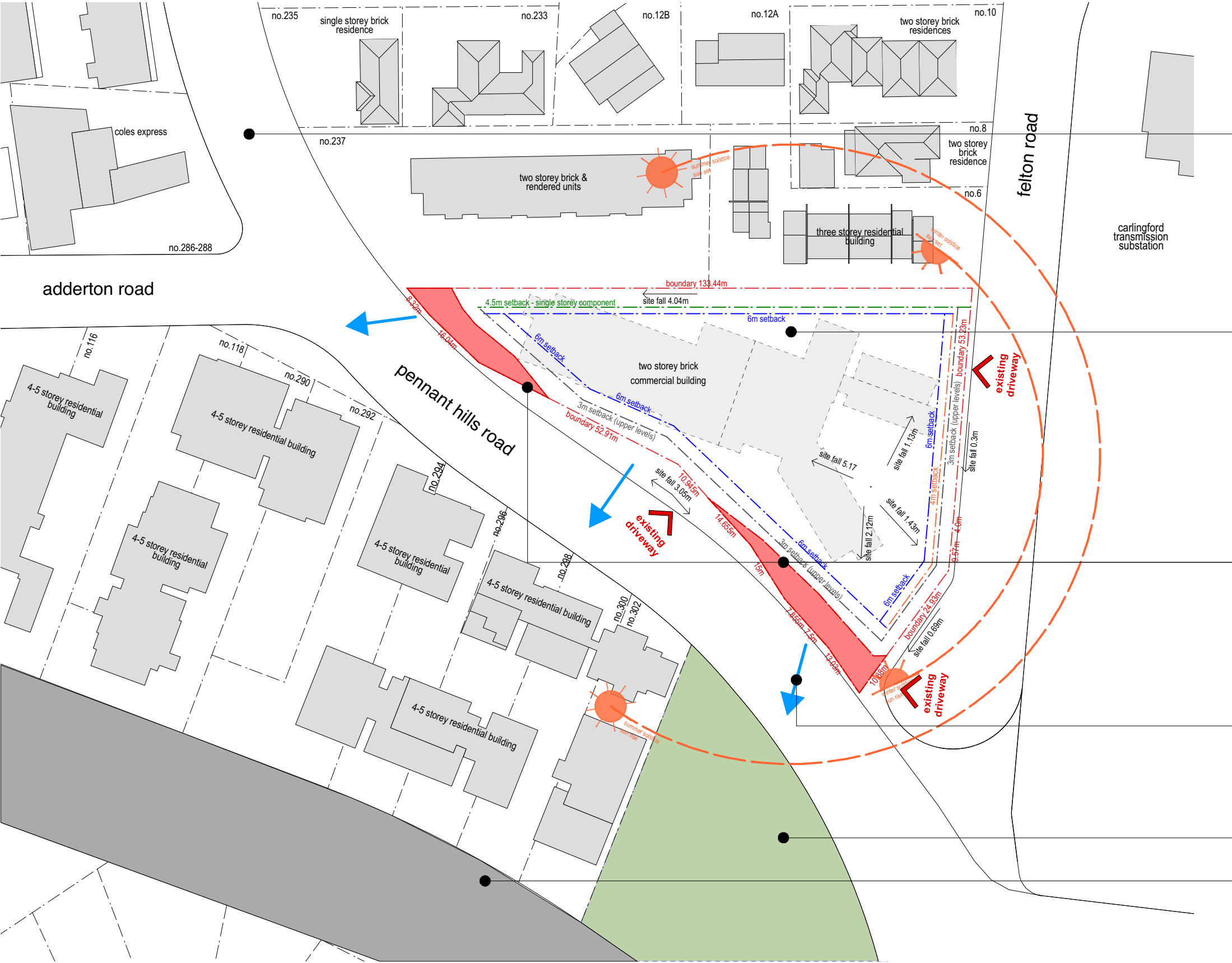
SCHEDULE

Dwg No.	Title
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101	SUMMARY
102	SITE ANALYSIS
103	DESIGN ANALYSIS
104	DESIGN ANALYSIS
105	DESIGN ANALYSIS
105.1	PROPOSED HEIGHTS - METRES
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108	INDICATIVE BASEMENT PLAN
109	INDICATIVE SITE PLAN
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112	INDICATIVE LEVEL 03-08 PLAN
113	INDICATIVE LEVEL 09 PLAN
114	INDICATIVE LEVEL 10 PLAN
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117	INDICATIVE WEST ELEVATIONS
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121	SEPP 65 COMPLIANCE - CROSS VENTILATION
122	SEPP 65 COMPLIANCE - COMMUNAL OPEN SPACE
123	SEPP 65 + COUNCIL COMPLIANCE - DEEP SOIL + LANDSCAPE
124	SEPP 65 COMPLIANCE - UNIT LAYOUTS
125	SEPP 65 COMPLIANCE - UNIT LAYOUTS
126	FSR + YIELD ANALYSIS
A01	MASSING COMPARISON 1

PROPOSED

The proposed amendments to the Hills Shire Local Environment Plan 2012 are:	
Height:	14 storeys 49m
FSR	2.10:1

SITE ANALYSIS



pennant hills road / cumberland highway

classified road with heavy truck use
significant noise source

subject site:

241-245 pennant hills road carlingford
area: 6330 sqm
area after road widening: 5765 sqm

rms road widening:

area required for widening of pennant hills road
area as quoted in DPIE Panel Briefing Report
area: 565 sqm

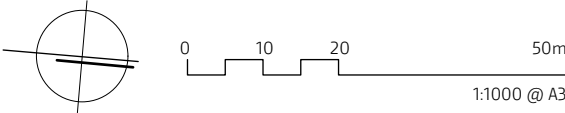
district views:

views to the city, parramatta and sydney olympic park
to the south and south east

views located away from optimal solar orientation

K13 submarine memorial park
local heritage item

rail line
carlingford station located approximately 250m to the
north east of the subject site

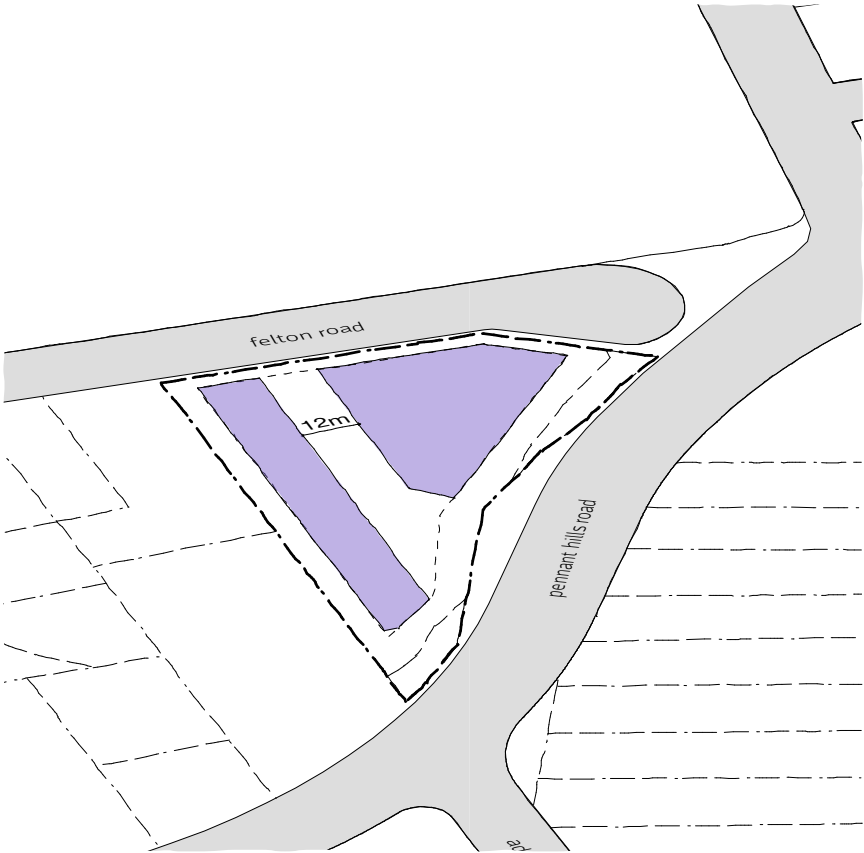


DESIGN ANALYSIS



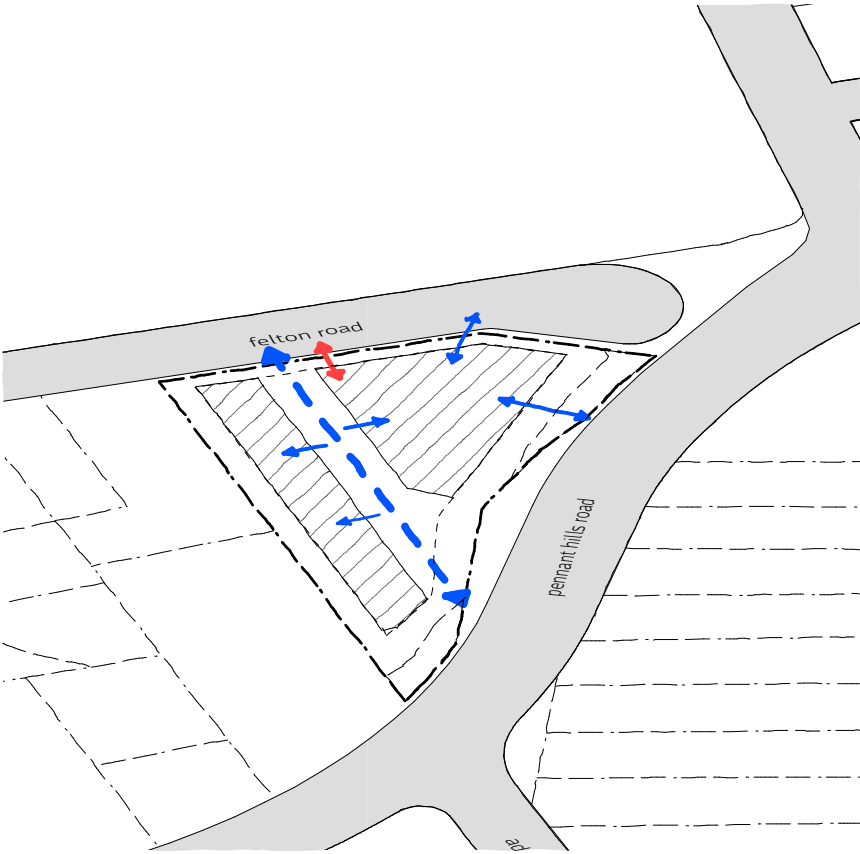
road widening + setbacks

- portion of site to be acquired to enable the widening of pennant hills road
- 6m setback to pennant hills road boundary (after application of road widening area)
- 6m setback to western boundary, to provide required ADG building separation and adequate privacy to neighbouring multi dwelling developments
- 4m setback to felton road boundary



building zones + separation

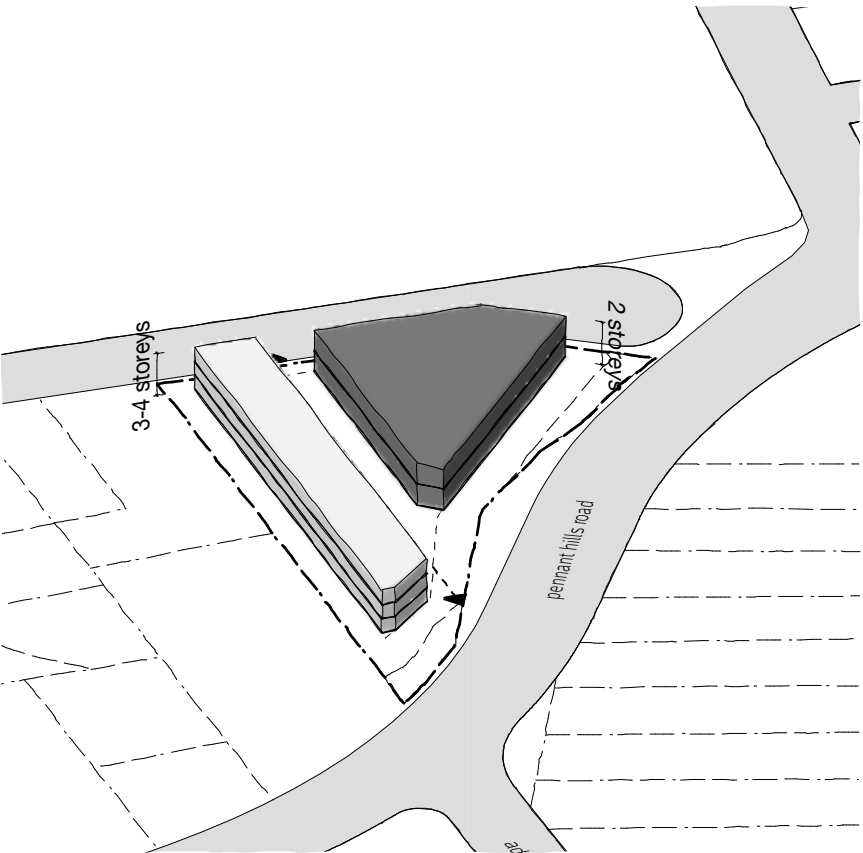
- triangular site split into two building location zones
- one towards the north, closest to carlingford station, new highrise developments and amenities
- one along western boundary, adjacent to medium density residential areas



pedestrian + vehicular circulation

- separation between building zones to be utilised as a public, pedestrian through site link, connecting felton road and pennant hills road
- development provided with direct pedestrian entries from both street frontages and from through site link for activation
- single vehicular entry / exit from felton road

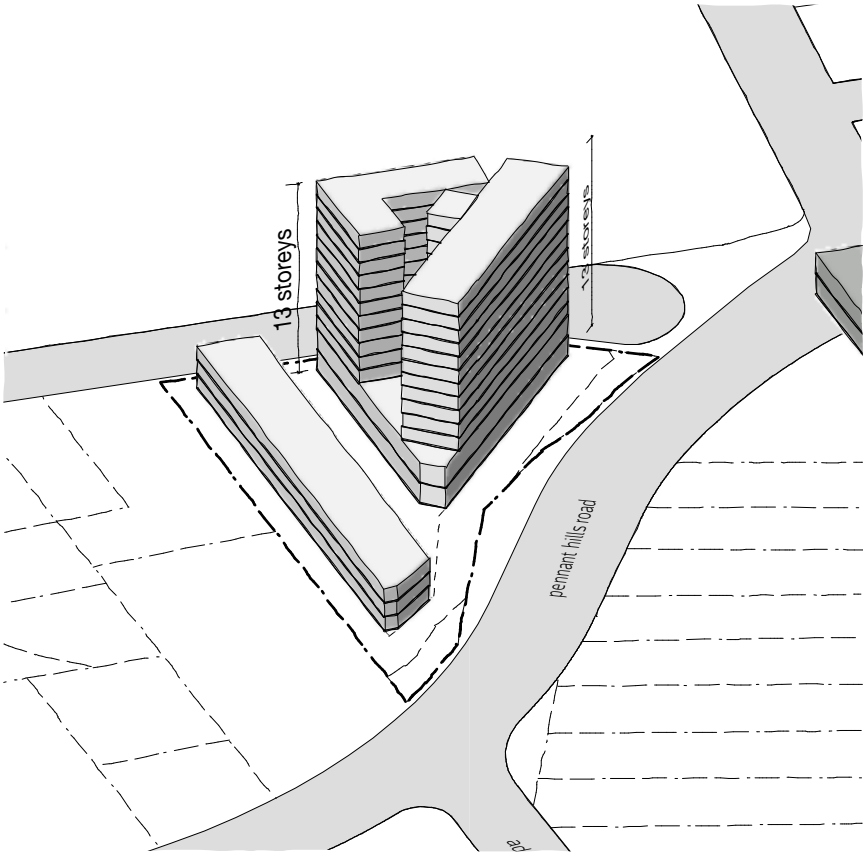
DESIGN ANALYSIS



commercial podium + low scale dwellings

two storey commercial podium in the north eastern corner of the site

low-scale residential building along western boundary to provide appropriate transition between adjacent residential zones, proposed development and new high rise development to the north east



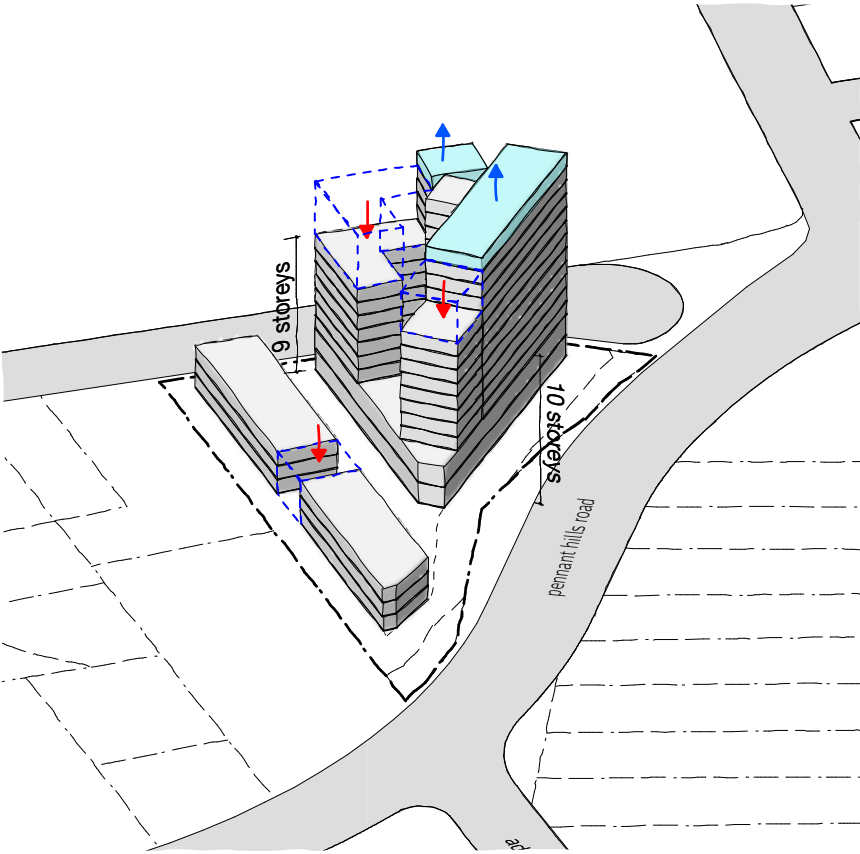
residential tower

residential tower above commercial podium

13 storey volume similar to new / approved mixed use developments along pennant hills road

massing oriented to provide high amenity for future residents by:

- maximising exposure to city and district views across pennant hills road
- maximising solar aspect towards felton road



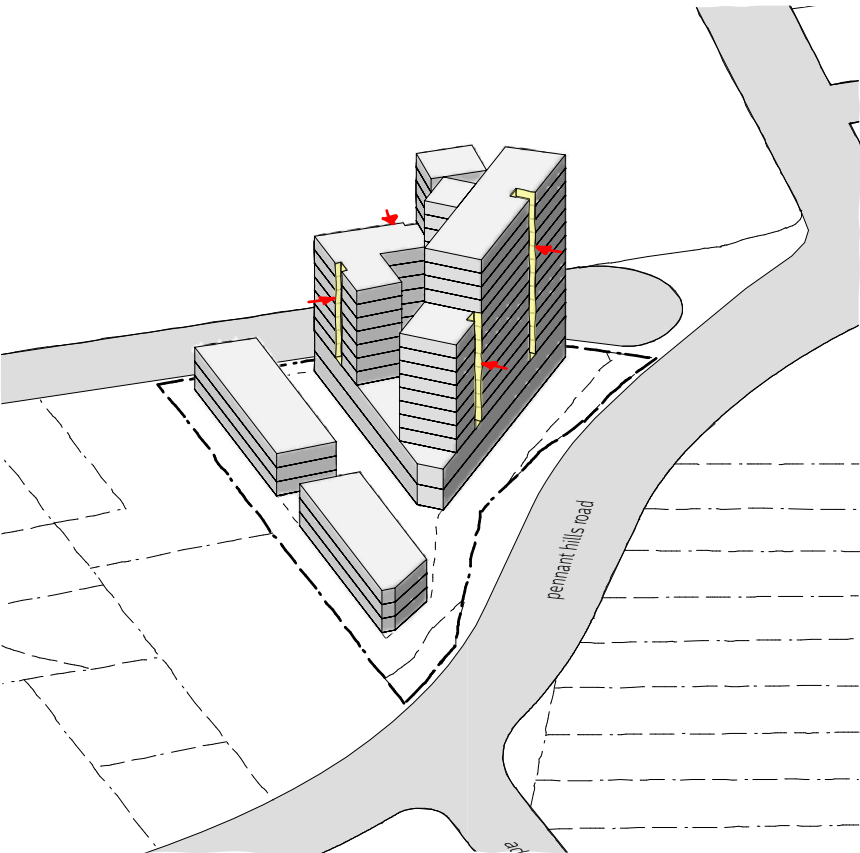
redistribute massing

massing redistributed to:

- reduce bulk / height of tower adjacent to low rise dwellings and surrounding low scale residential areas
- relocate building volume in the north east portion of the site, closest to carlingford train station and new / anticipated 17-18 storey developments (allowable under current planning controls)

maximum building height: 14 storeys
transition building height: 9 - 10 storeys

redistributed massing provides appropriate transition between low density areas to the west and high-rise developments to the north east



building indentations

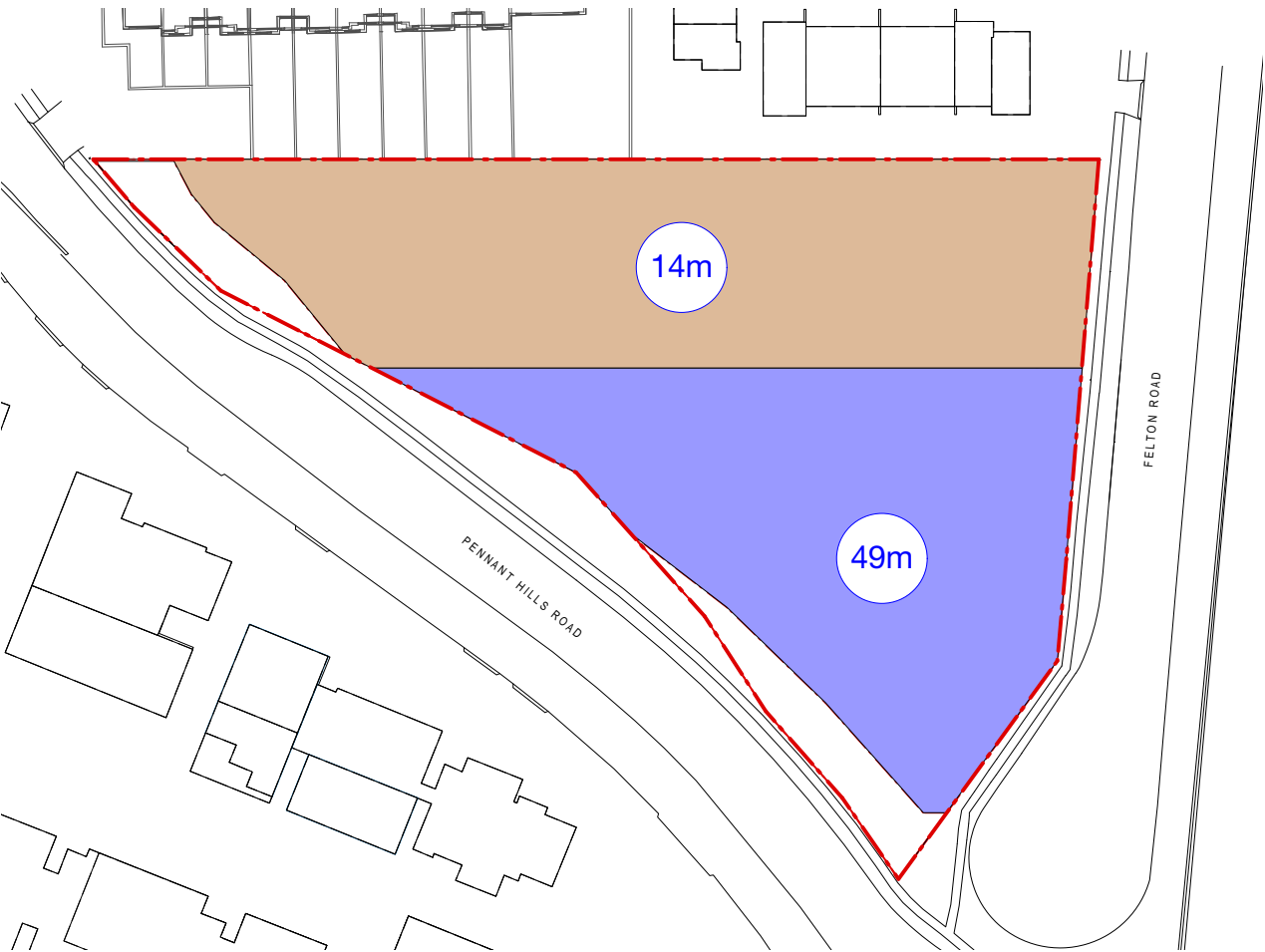
indentations provide relief and articulation to building massing
maximum length of unbroken facade: 30m



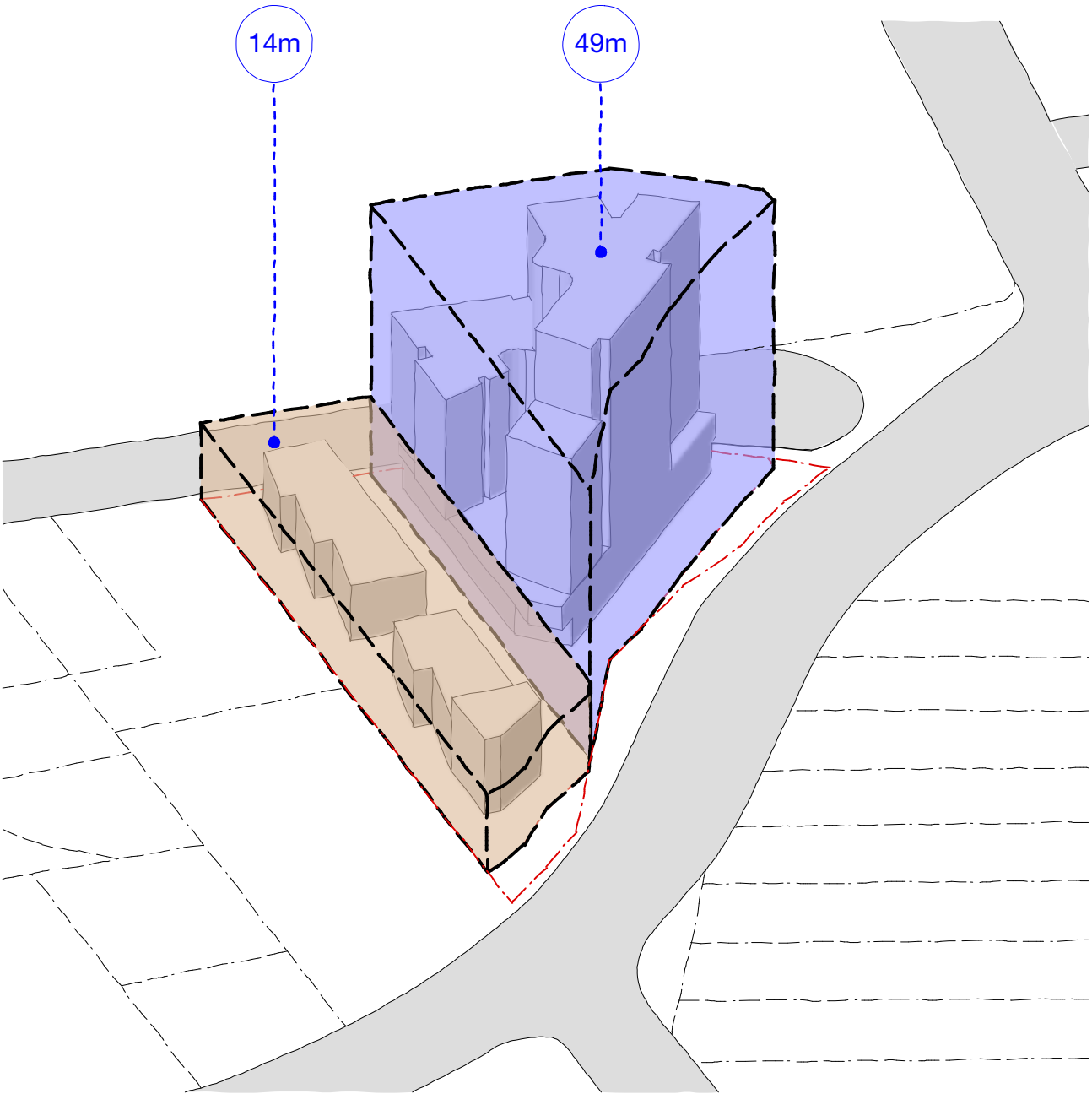
solar aspect + facade articulation

building volumes adjusted to capture sun and views
pushing / pulling of volumes creates dynamic massing to provide visually interesting, highly articulated development

PROPOSED HEIGHTS - METRES

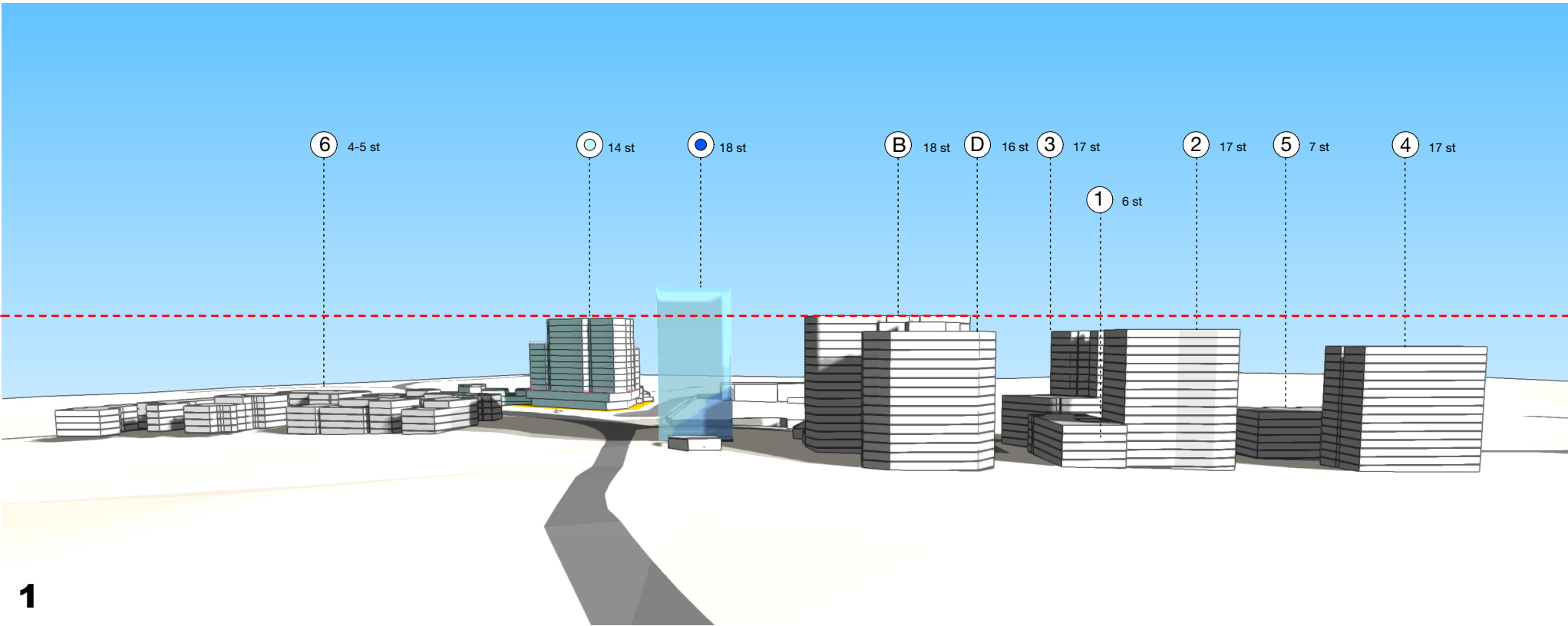


proposed building heights in meters - plan



proposed building heights in meters - 3D
indicative scheme massing shown in grey

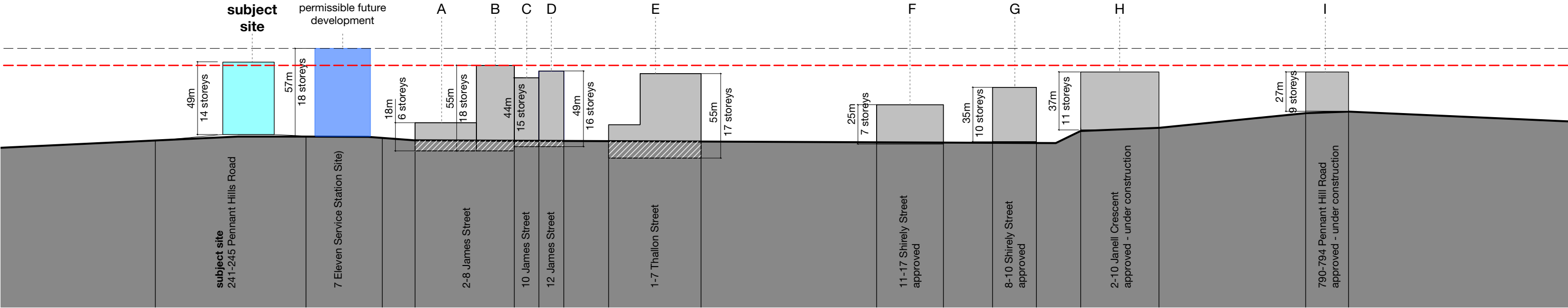
VIEW ANALYSIS - CONTEXT



1
view to subject site from pennant hills road



plan key



pennant hills road height datum

comparative heights of new / approved developments along pennant hills road

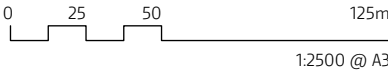
proposed maximum height and number of storeys is commensurate with the scale of recently constructed / approved developments

proposed maximum height is below permissible height on adjacent site (no. 243 pennant hills road)

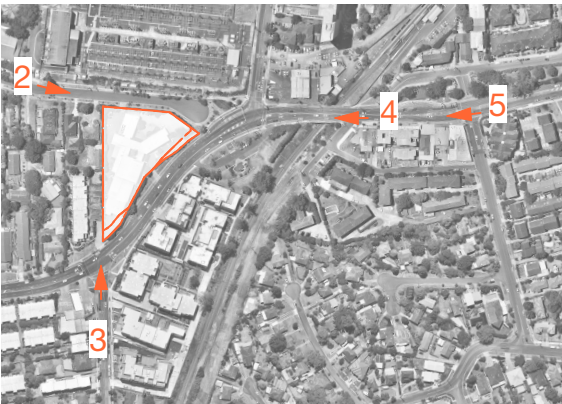
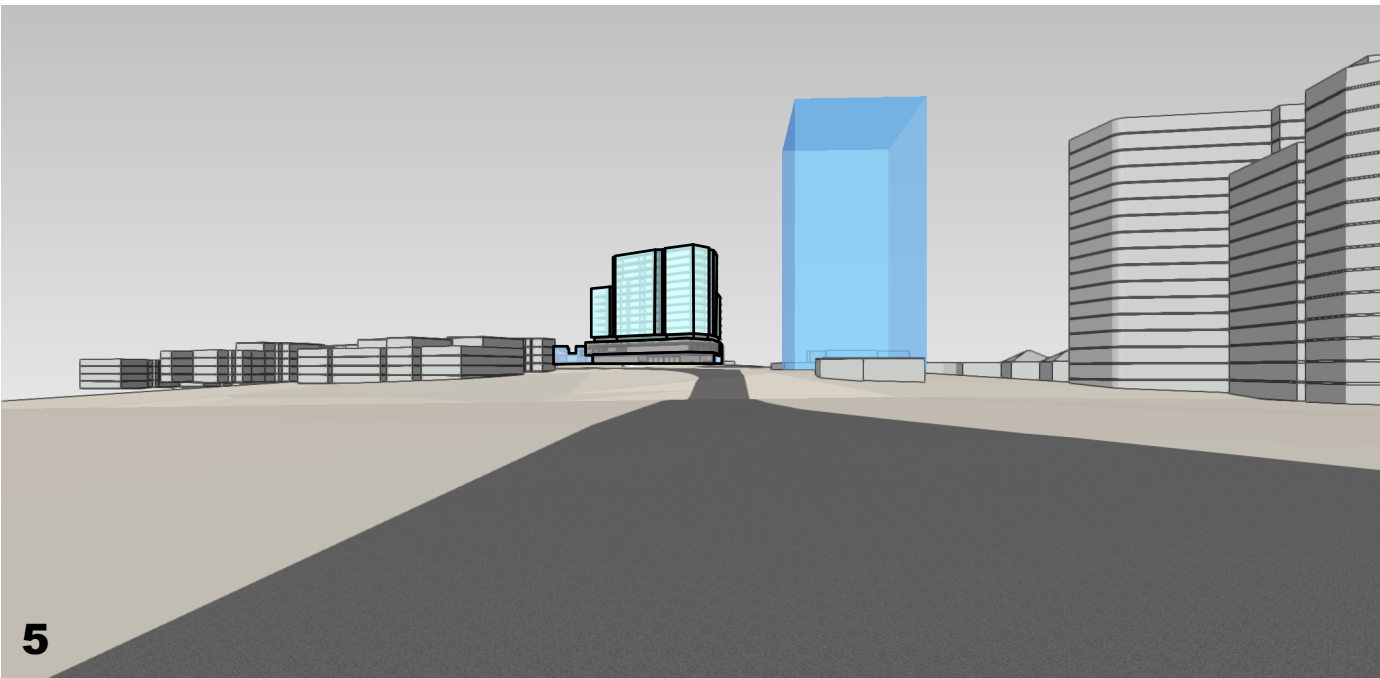
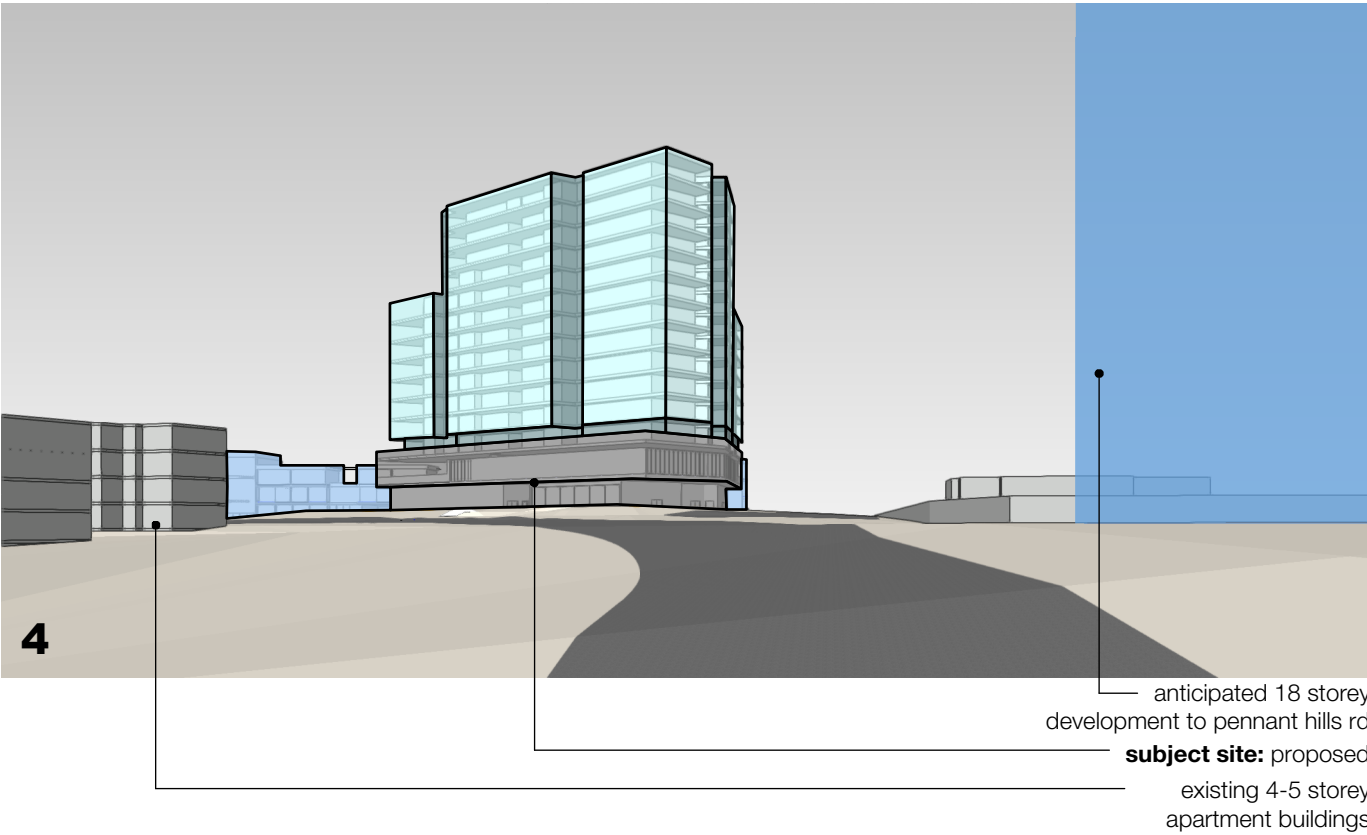
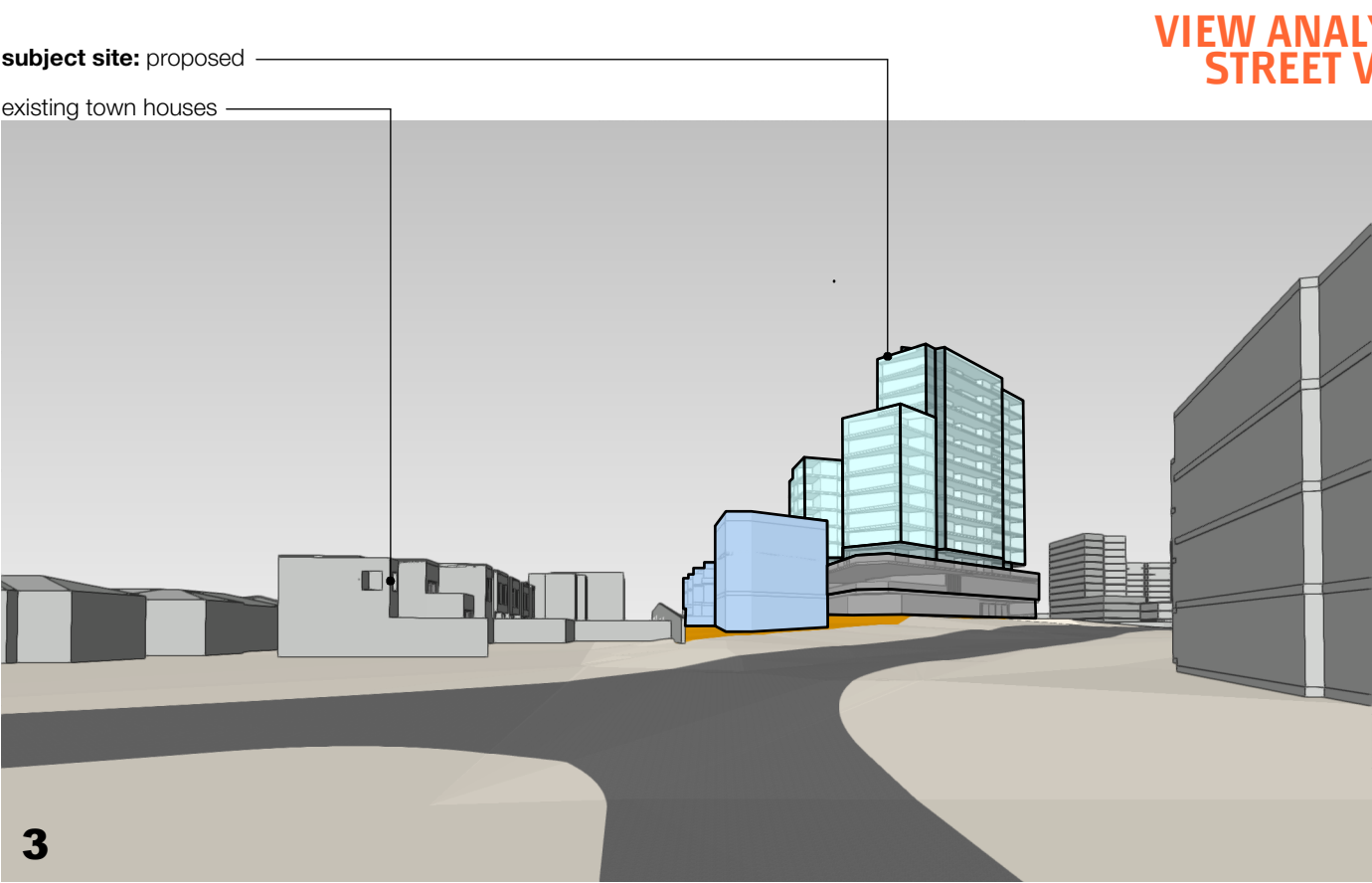
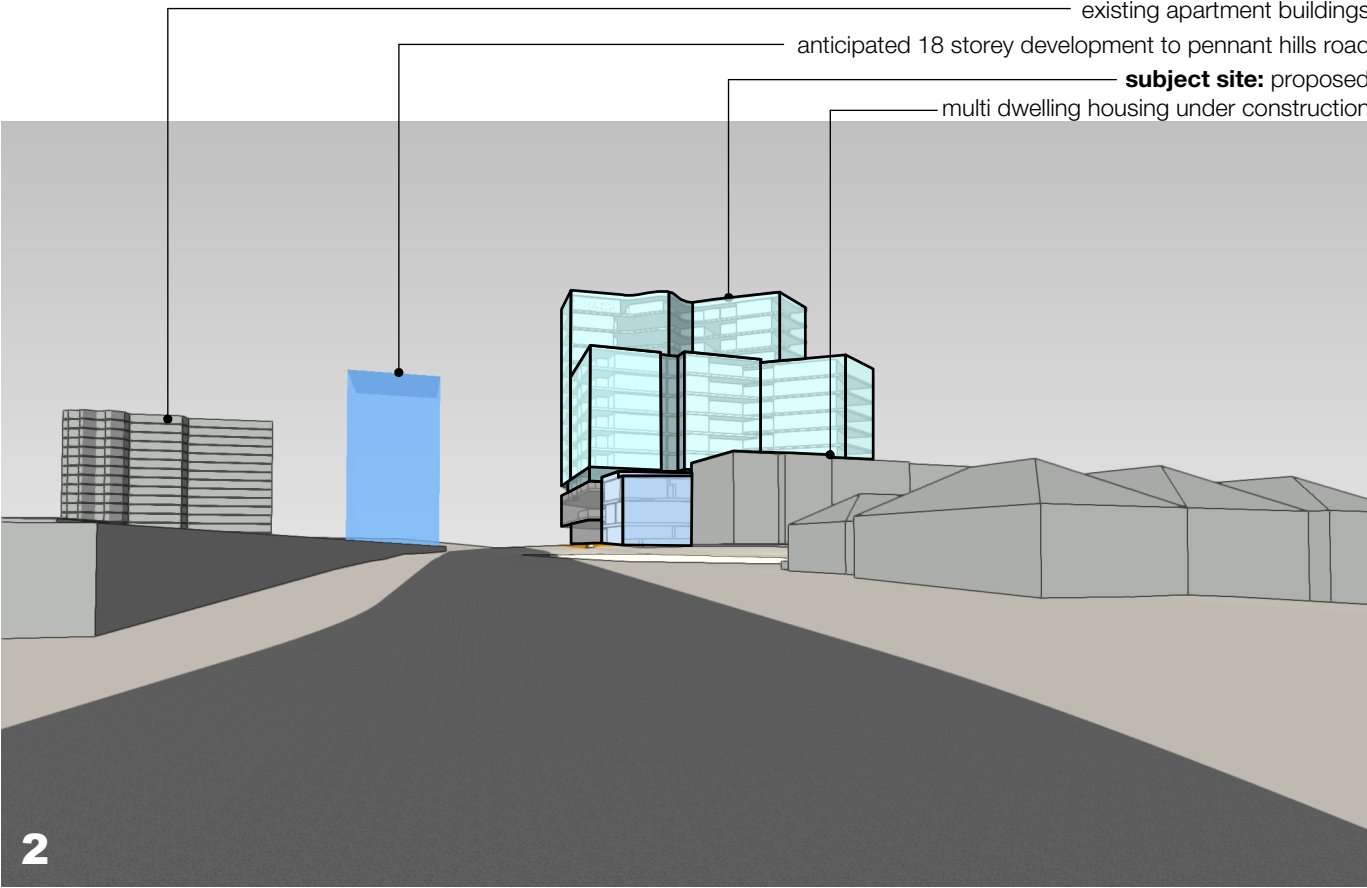
NB: heights / number of storeys for new / approved developments is as per DA documentation accessed via Council's website

height of permissible development at No 243 Pennant Hills Road has been calculated from allowable height under Hills LEP 2012 and surveyed ground levels

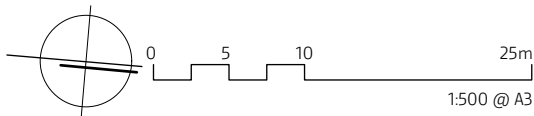
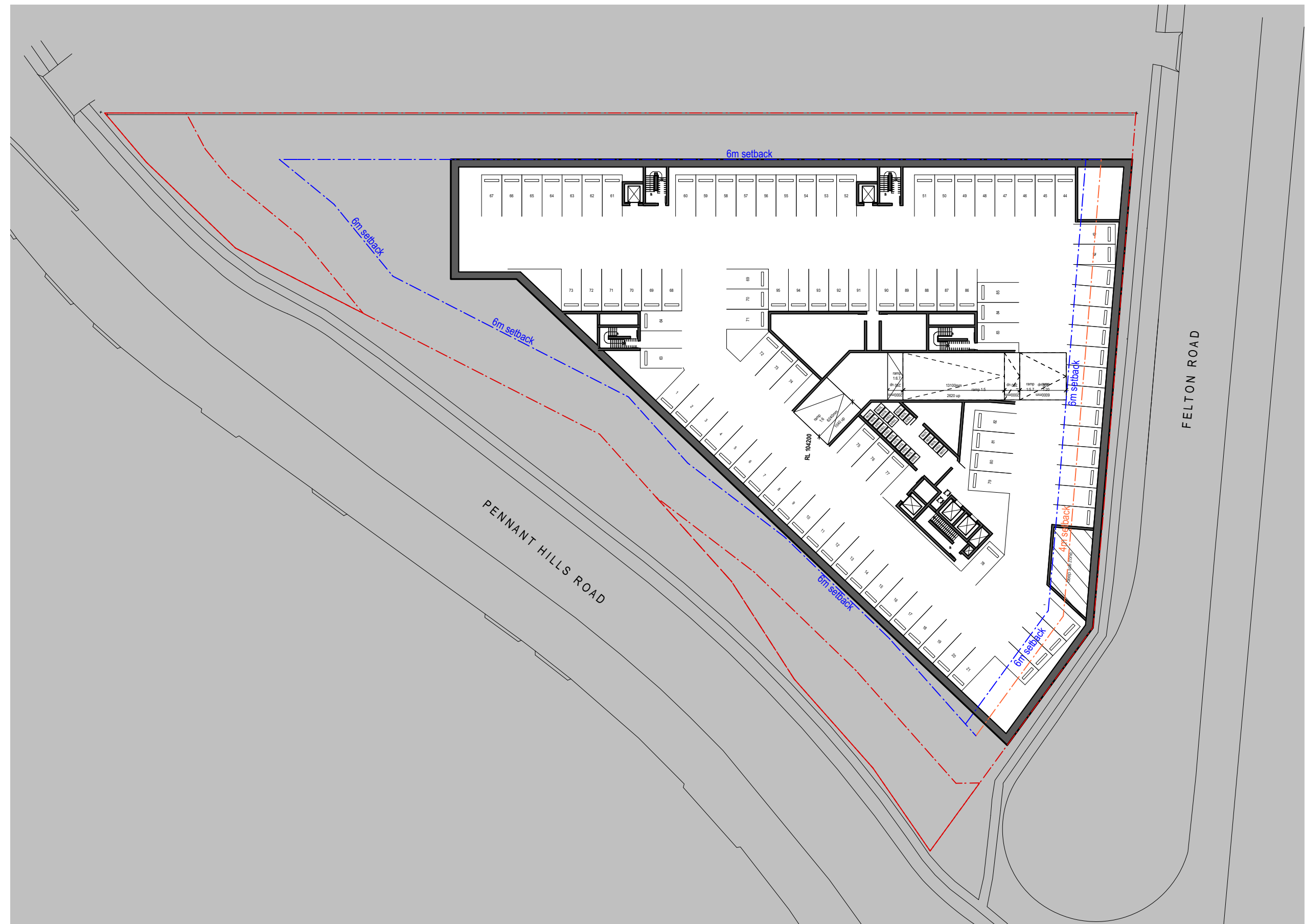
actual height of buildings may vary



VIEW ANALYSIS - STREET VIEWS

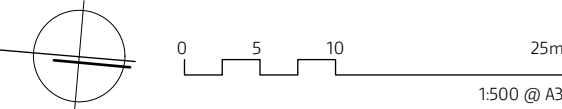


PRELIMINARY - 09/09/21

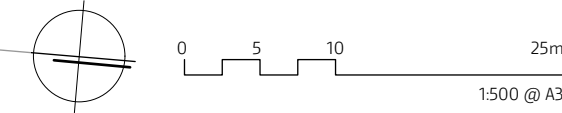


INDICATIVE SITE PLAN





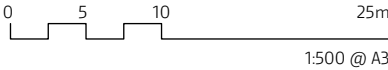
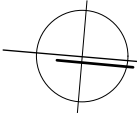
INDICATIVE LEVEL
02 PLAN



INDICATIVE LEVEL
03-08 PLAN

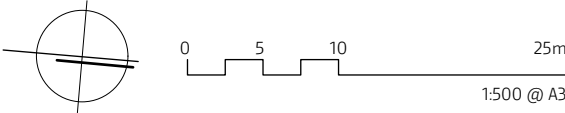


planter on every second level
void above on alternate levels

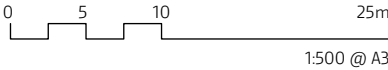
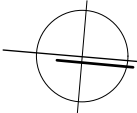




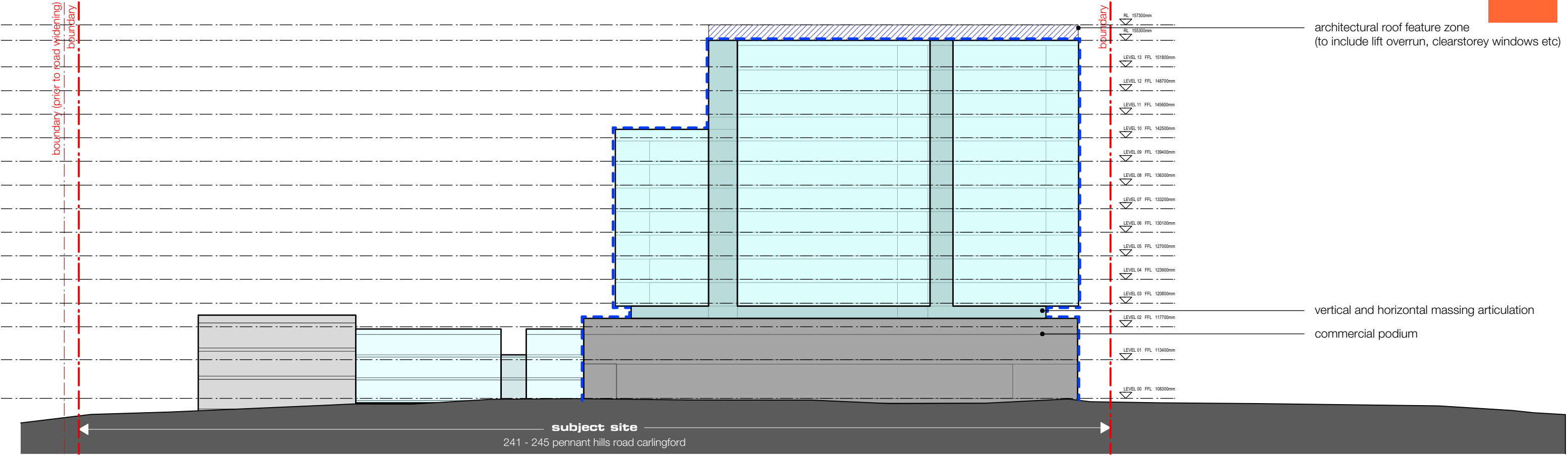
INDICATIVE LEVEL
10 PLAN



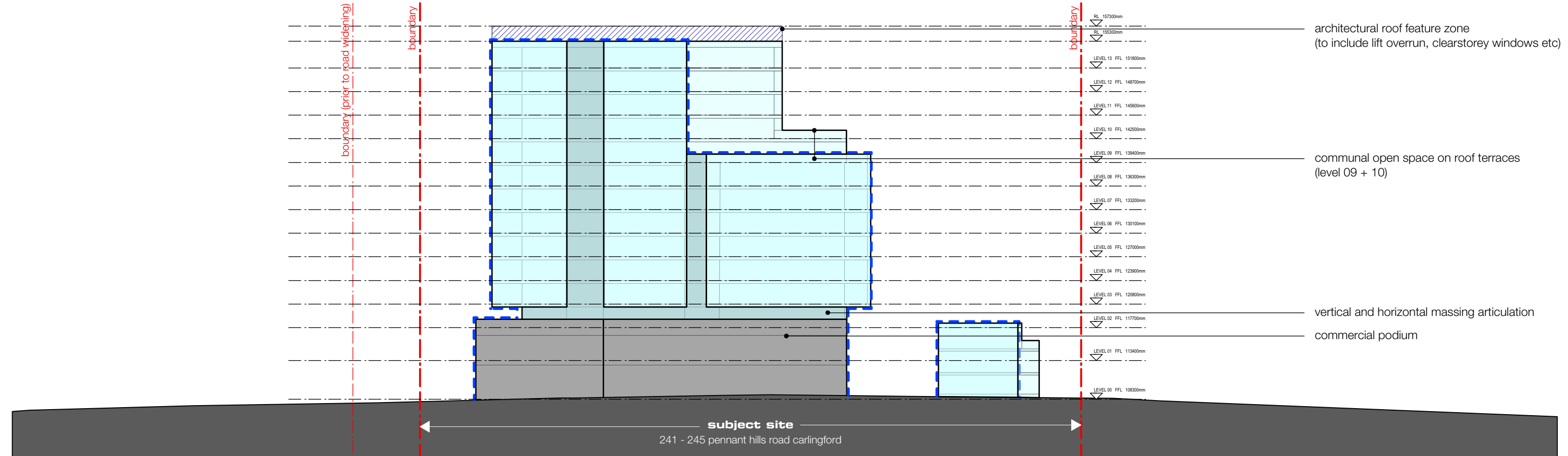
INDICATIVE LEVEL
11-13 PLAN



INDICATIVE STREET ELEVATIONS



pennant hills road elevation

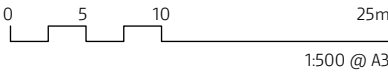
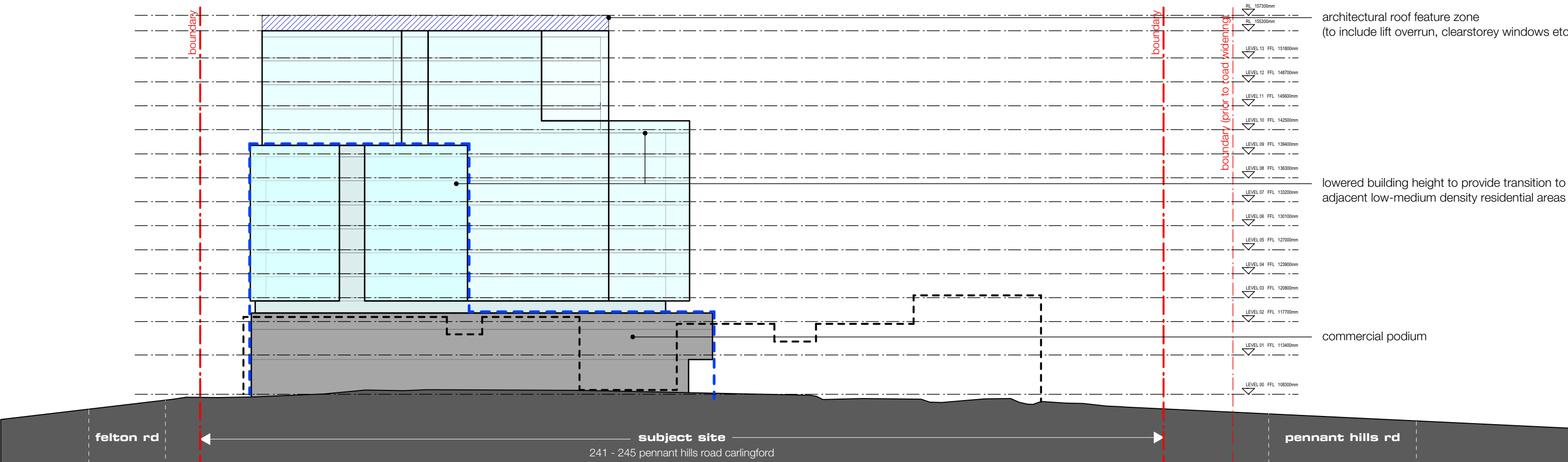
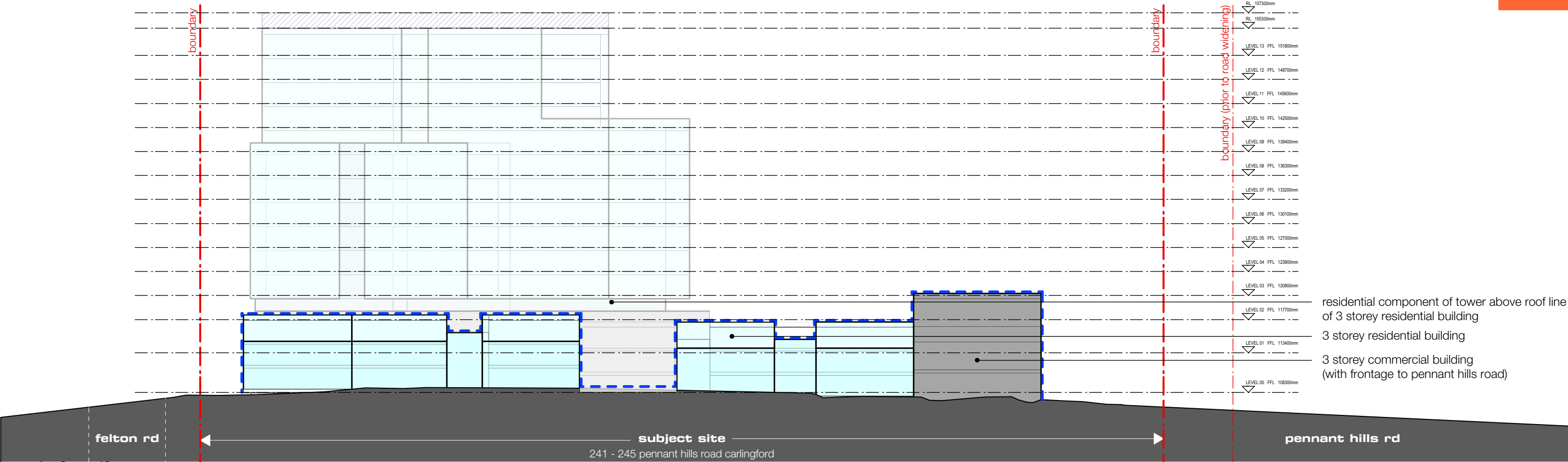


felton road elevation



1:500 @ A3

INDICATIVE WEST ELEVATIONS



SOLAR ANALYSIS -
SHADOW DIAGRAMS



9:00AM - June 21



10:00AM - June 21

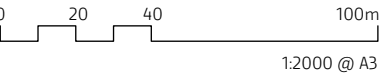


11:00AM - June 21



12:00PM - June 21

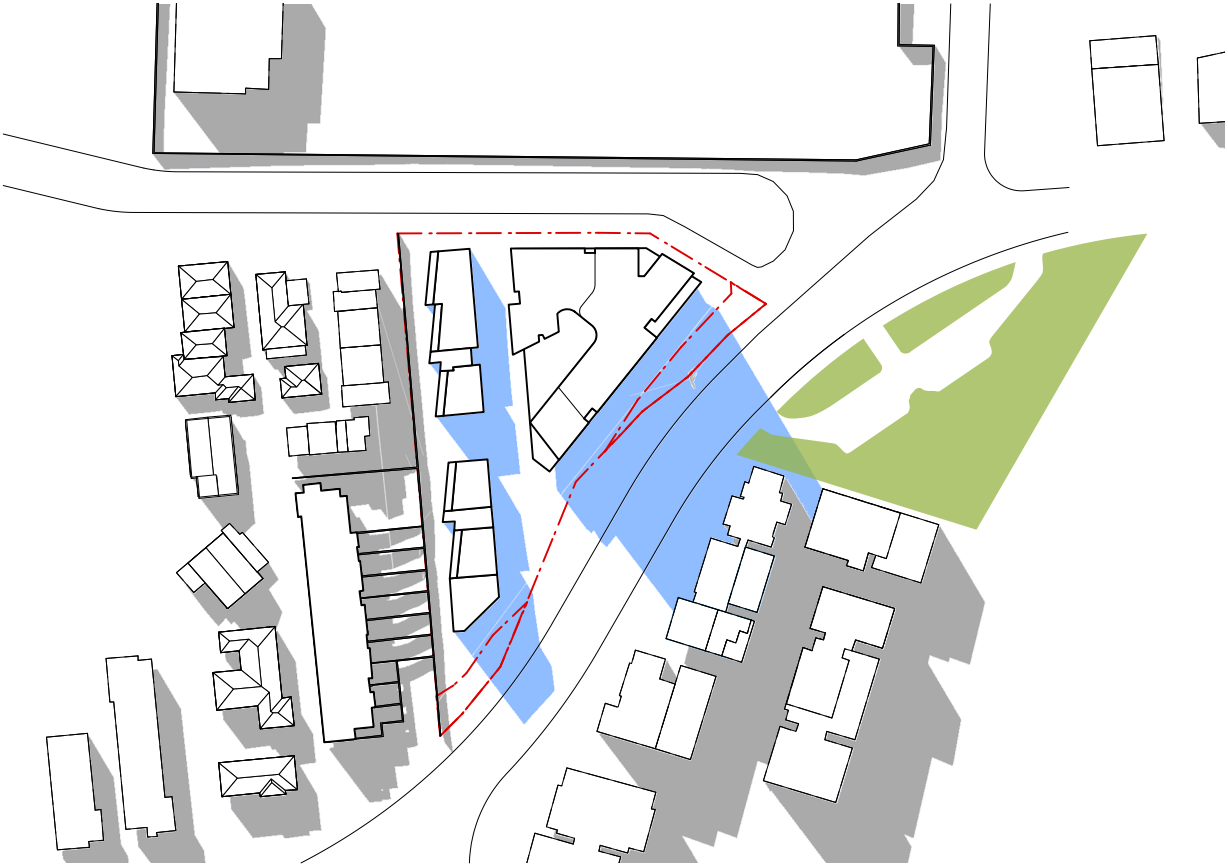
- existing shadow cast by neighbouring developments
- additional shadow cast by proposed development
- K13 Submarine Memorial Park
- site boundary



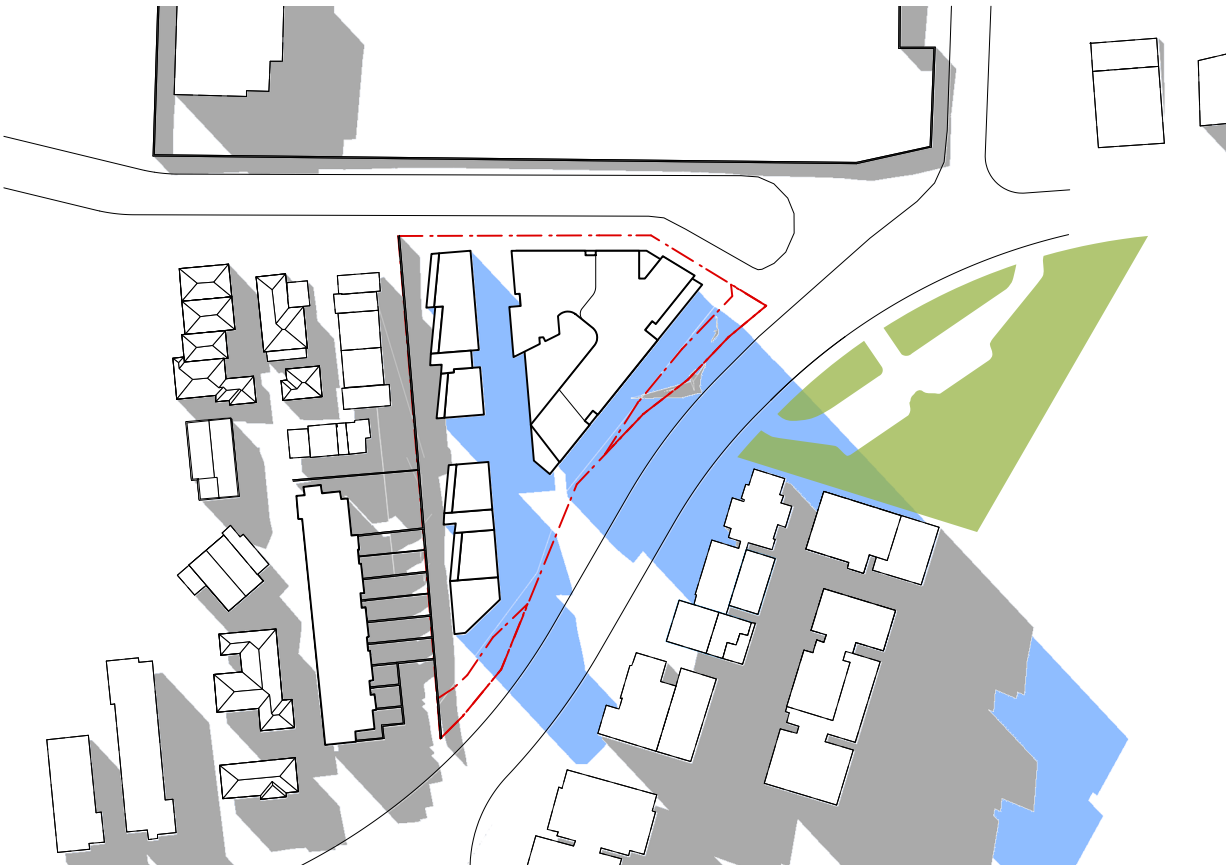
SOLAR ANALYSIS -
SHADOW DIAGRAMS



1:00PM - June 21

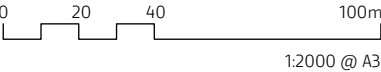


2:00PM - June 21

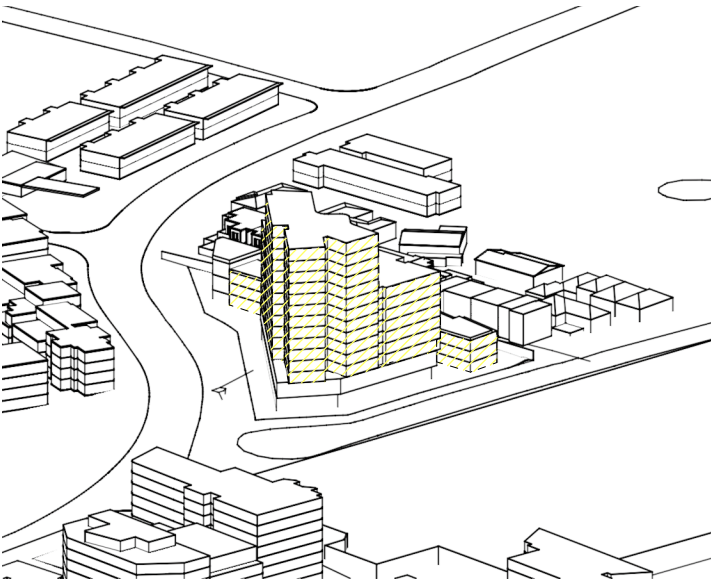


3:00PM - June 21

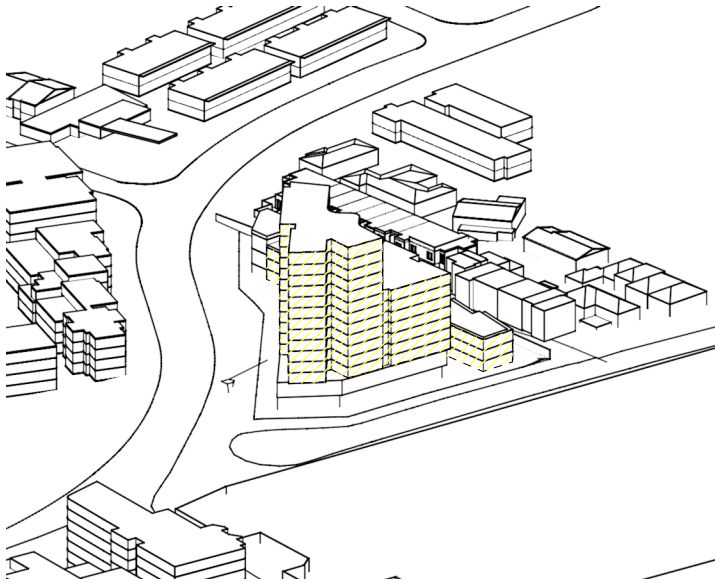
- existing shadow cast by neighbouring developments
- additional shadow cast by proposed development
- K13 Submarine Memorial Park
- site boundary



SOLAR ANALYSIS - VIEWS FROM SUN



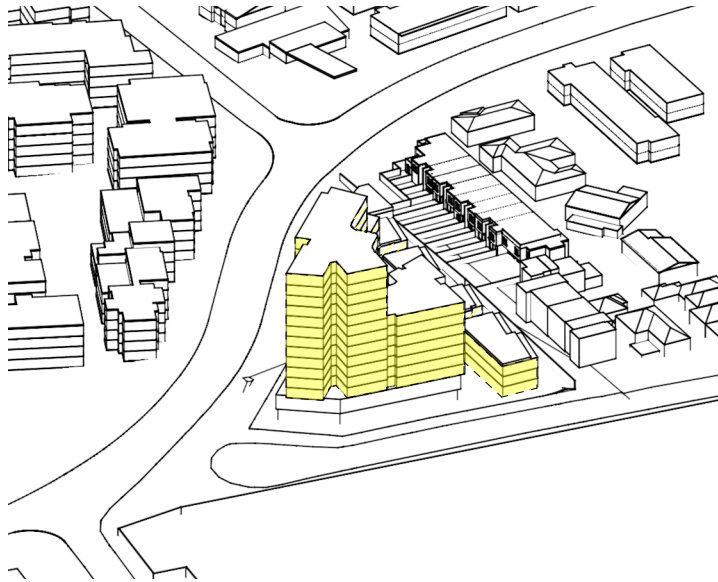
9:00AM - June 21



9:30AM - June 21



10:00AM - June 21



10:30AM - June 21







11:00AM - June 21



11:30AM - June 21



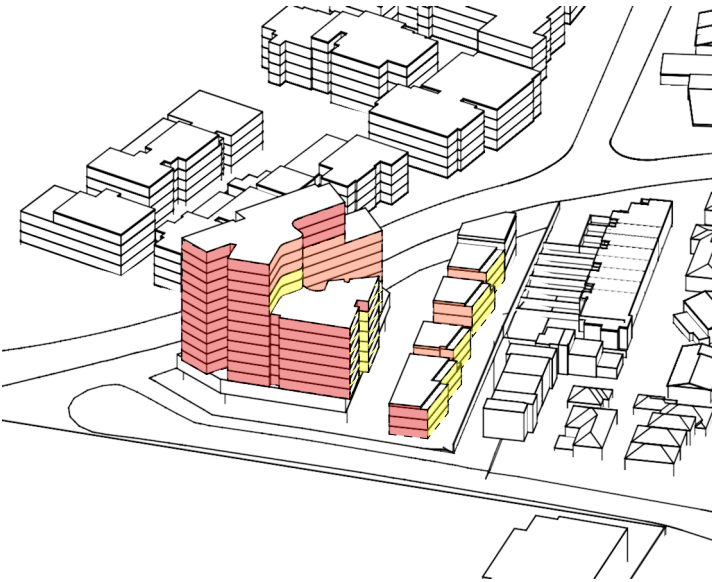
12:00PM - June 21

-  facade begins to receive direct solar access
-  facade receives one hour of direct solar access
-  facade receives two hours of direct solar access
-  facade receives three or more hours of direct solar access
- NB** all visible surfaces in images receive sun

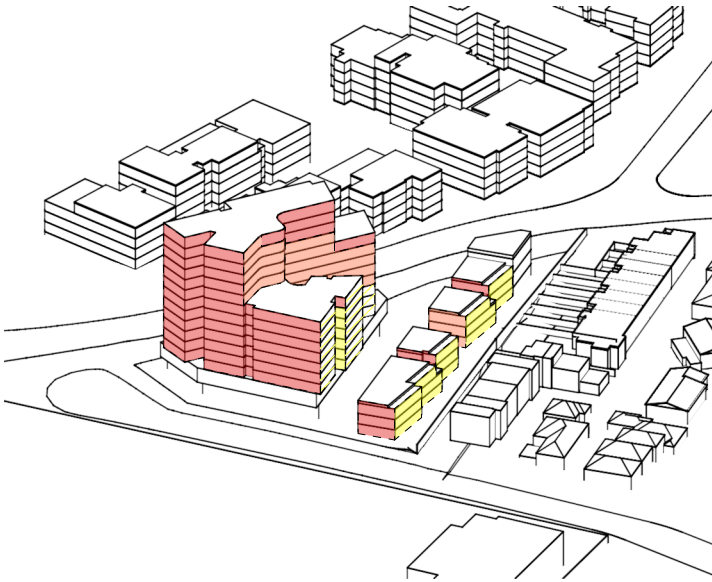
SOLAR ANALYSIS - VIEWS FROM SUN



12:30PM - June 21



1:00PM - June 21



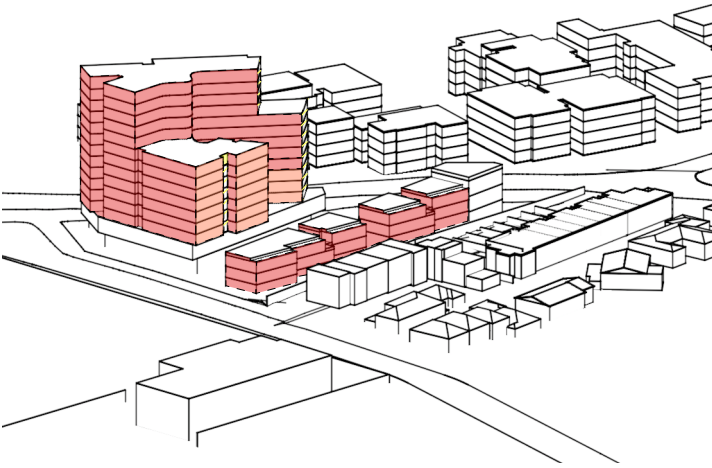
1:30PM - June 21







2:00PM - June 21



2:30PM - June 21



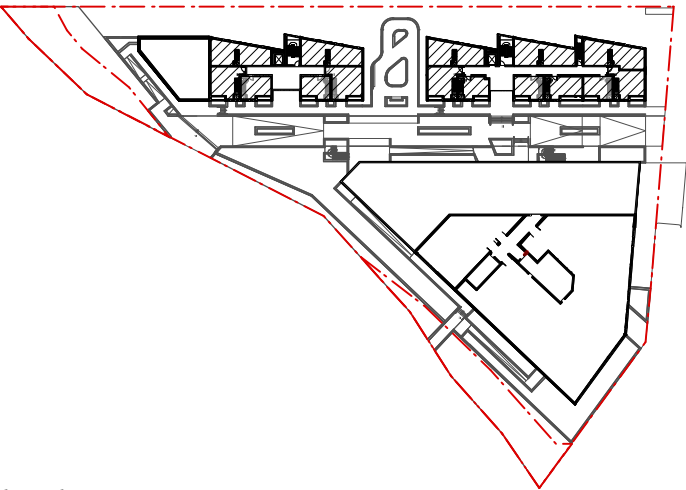
3:00PM - June 21

-  facade begins to receive direct solar access
-  facade receives one hour of direct solar access
-  facade receives two hours of direct solar access
-  facade receives three or more hours of direct solar access
- NB** all visible surfaces in images receive sun

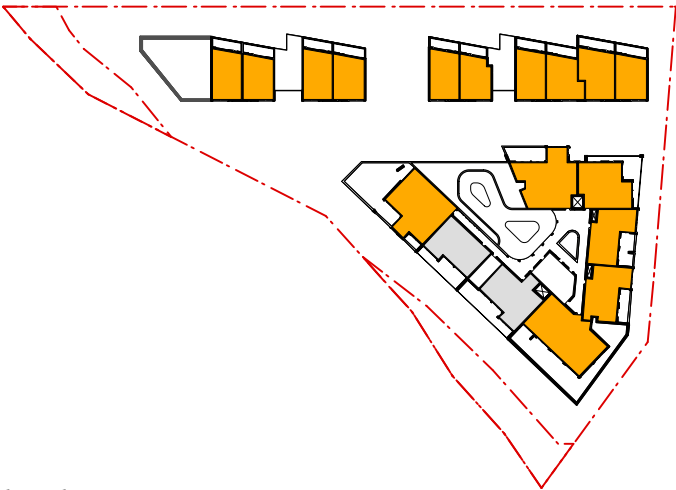
SEPP 65 COMPLIANCE - SOLAR ACCESS



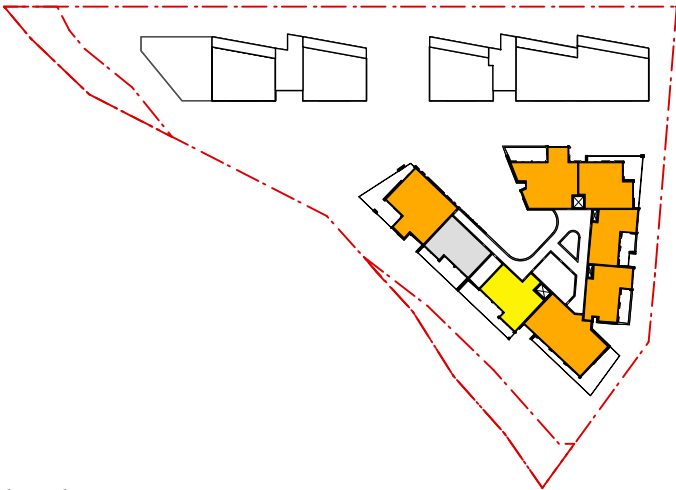
level 00



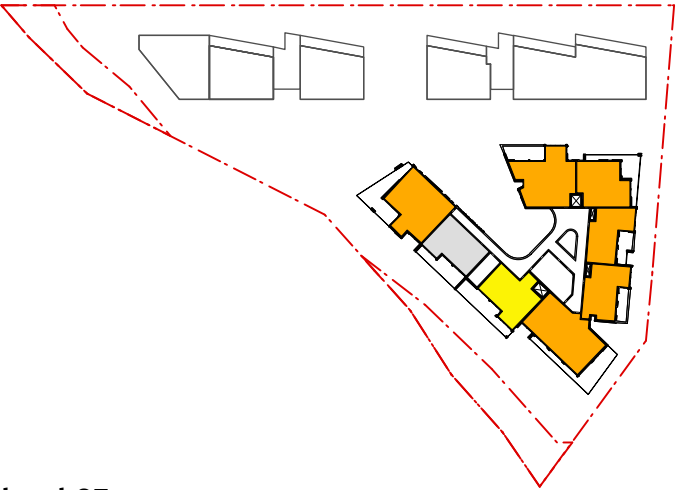
level 01



level 02



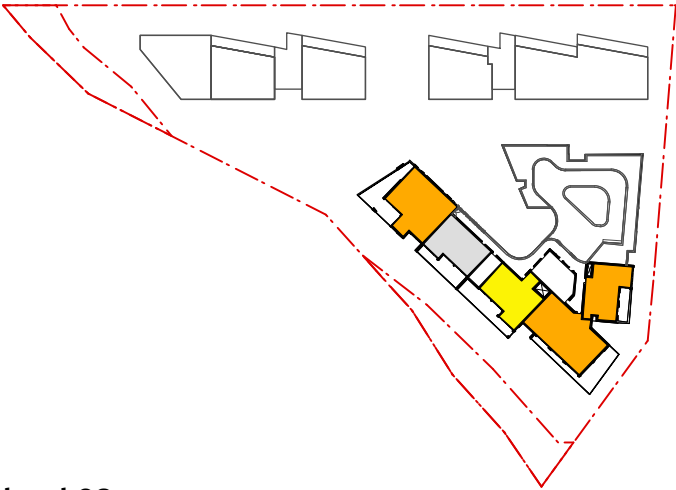
levels 03 - 06



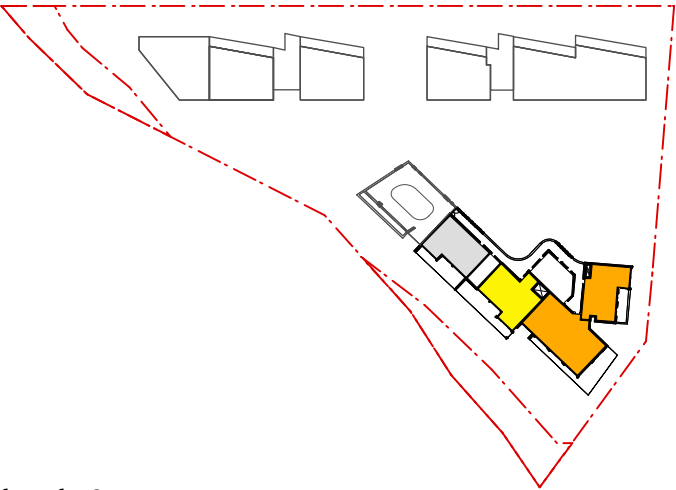
level 07



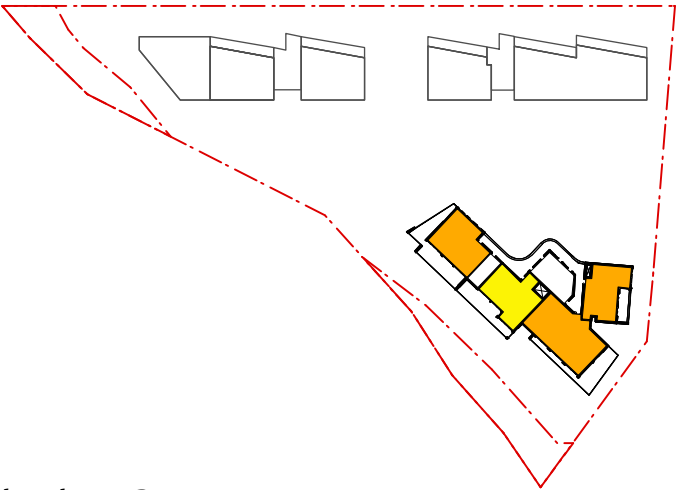
level 08



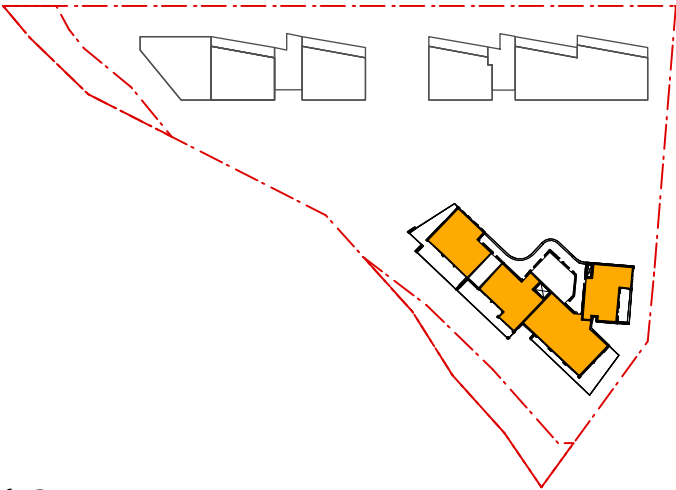
level 09



level 10



levels 11-12



level 13

SUMMARY

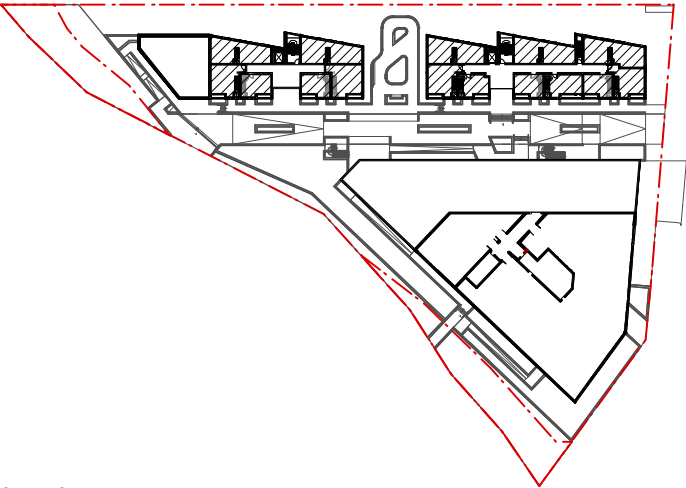
Level	Units Receiving Compliant Solar Access	Units Receiving No Direct Sun
00	10	0
01		
02	16	2
03	6	1
04	6	1
05	6	1
06	6	1
07	6	1
08	6	1
09	3	1
10	2	1
11	3	0
12	3	0
13	4	0
Total	77	10
Percentage (/ 97)	79%	10%
Complies	Yes	Yes

- unit receives 2 or more hours of solar access to living room and private open space between 9am and 3pm on the winter solstice
- unit receives some direct sun between 9am and 3pm on the winter solstive
- unit receives no direct sun between 9am and 3pm on the winter solstice
- cross over unit (counted on level above or below)

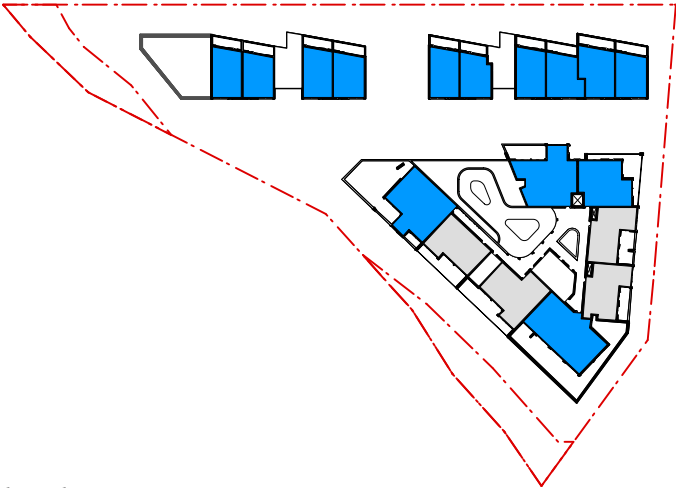
SEPP 65 COMPLIANCE - CROSS VENTILATION



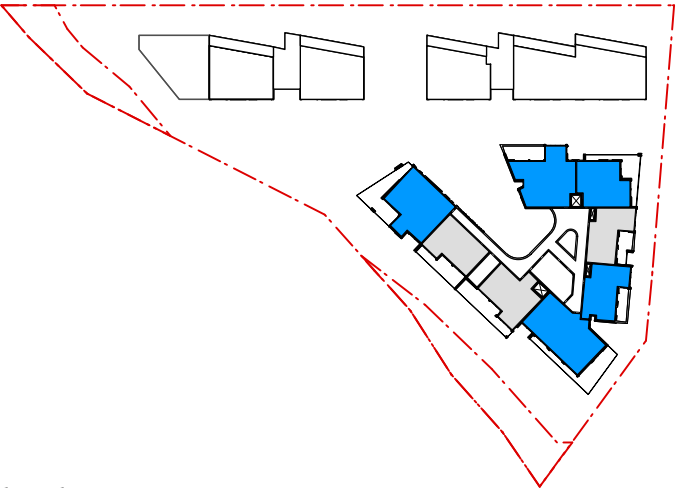
level 00



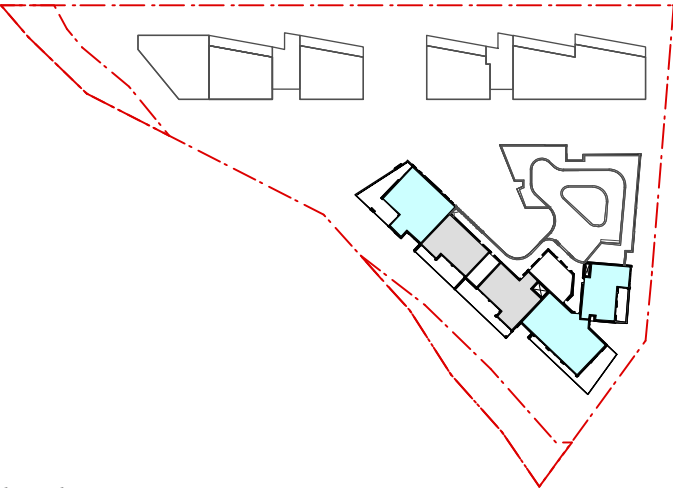
level 01



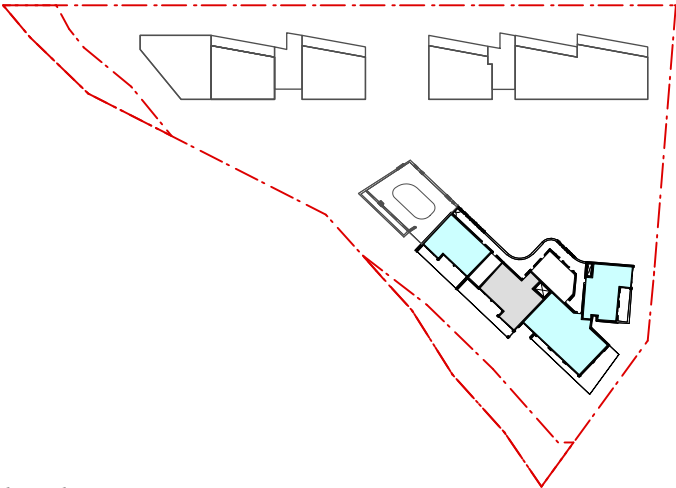
level 02



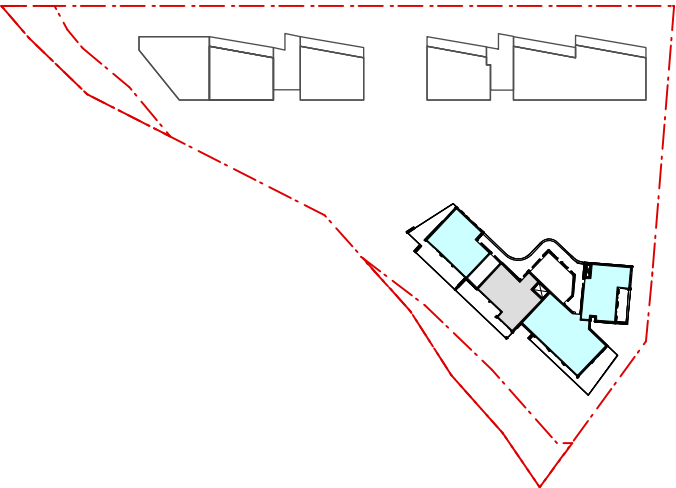
levels 03 - 08



level 09



level 10



levels 11-13

SUMMARY

Level	Units Receiving Cross Ventilation	Units Capable of Receiving Cross Ventilation
	(up to 9 storeys)	(10 storeys +)
00		10
01		
02	14	
03	5	
04	5	
05	5	
06	5	
07	5	
08	5	
09		3
10		3
11		3
12		3
13		3
Total	54	15

Percentage in first 9 storeys. (/ 76)	71% Complies
--	--------------

Percentage in 14 storeys (/ 97)	71%
--	-----

- unit receives cross ventilation
- upper level unit capable of receiving cross ventilation (if balcony cannot be fully enclosed)
- unit does not receive cross ventilation
- cross over unit (counted on level above or below)

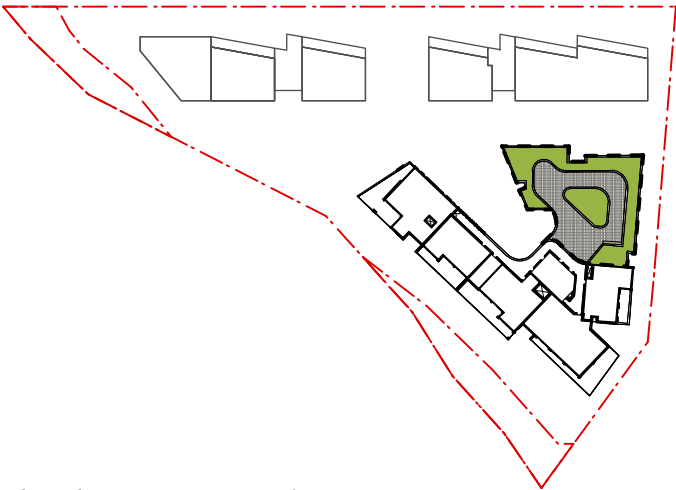
SEPP 65 COMPLIANCE - COMMUNAL OPEN SPACE



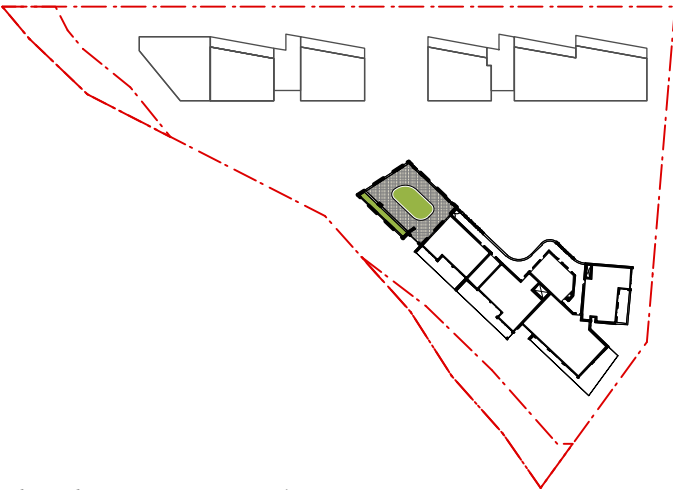
level 00 - Public Open Space A + Communal Open Space A



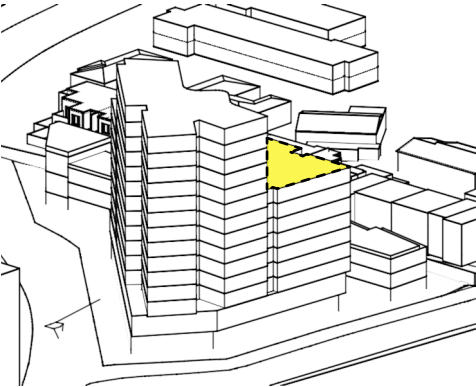
level 02 - Communal Open Space B



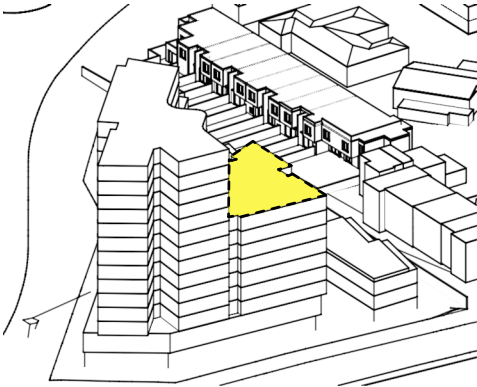
level 09 - Communal Open Space C



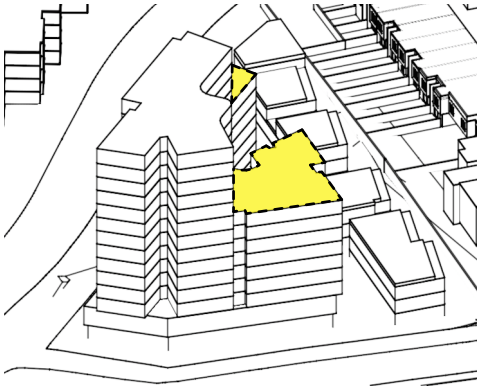
level 10 - Communal Open Space D



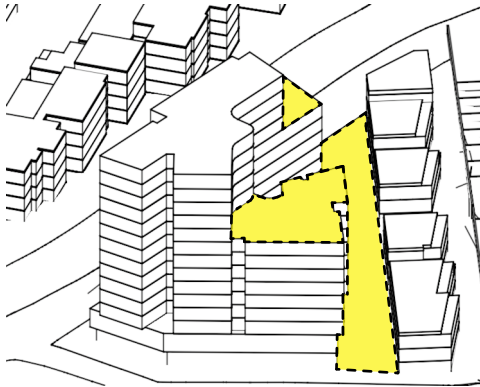
9:00 am



10:00 am



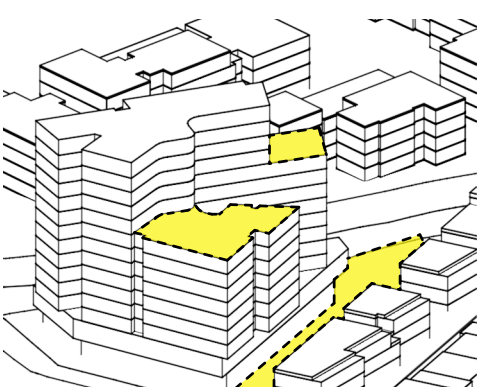
11:00 am



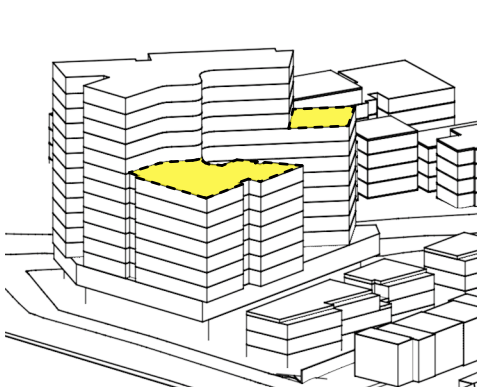
12:00 pm



1:00 pm



2:00 pm



3:00 pm

SITE AREA

Existing Site Area:	6330 sqm
RMS Road Widening Acquisition:	565 sqm
Site Area After Road Widening:	5765 sqm

COMMUNAL + PUBLIC OPEN SPACE

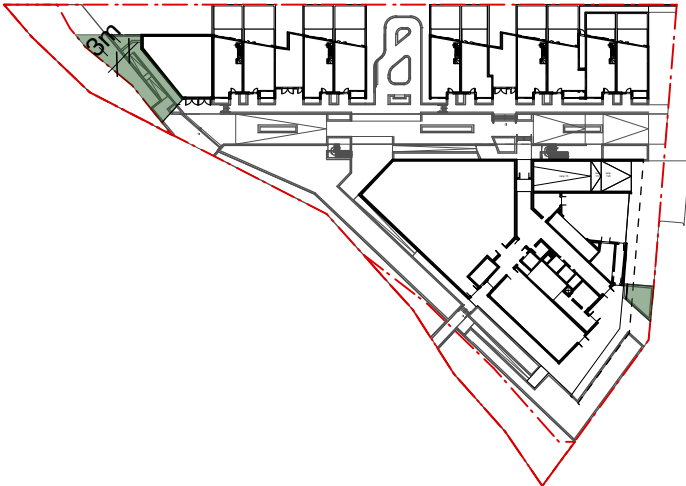
Space	Area (sqm. approx)	Hours Solar Access
pos a	1070	2
cos a	250	0
cos b	270	0
cos c	430	6
cos d	160	4
Total Recreation Area	2180	-
% of Site Area	37.8%	-
Complies	Yes	Yes

open space receiving solar access to 50% of its area

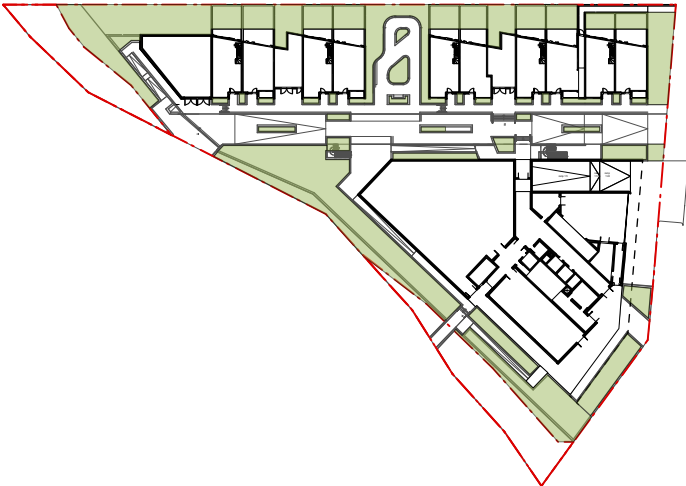
SEPP 65 + COUNCIL COMPLIANCE - DEEP SOIL + LANDSCAPE



level 00 - Deep Soil Area (min dimension 6m)



level 00 - Deep Soil Area (min dimension 3m)



level 00 - Landscaped Area (min dimension 1m)

SITE AREA

Existing Site Area:	6330 sqm
RMS Road Widening Acquisition:	565 sqm
Site Area After Road Widening:	5765 sqm

DEEP SOIL AREA

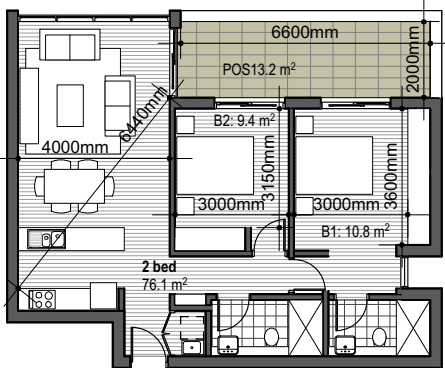
Deep Soil Area @ 6m:	1542 sqm
% of Site Area	26.7%
Complies	Yes
Deep Soil Area @ 3m	167 sqm
Total Deep Soil Area	1709 sqm
% of Site Area	29.6%

LANDSCAPED AREA

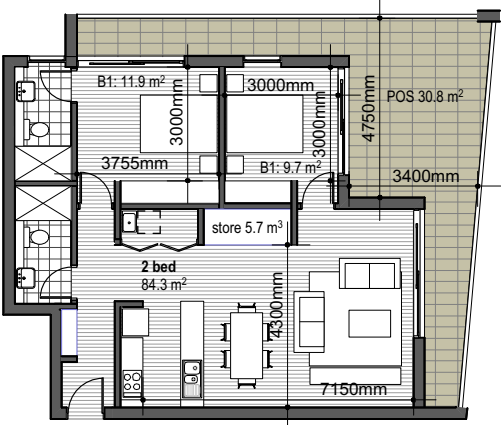
Landscaped Area @ 1m	1603 sqm
% of Site Area	27.8%
Complies	Yes

- deep soil area (free from basement and above ground structures)
- landscaped area (free from above ground strucutres and paving)

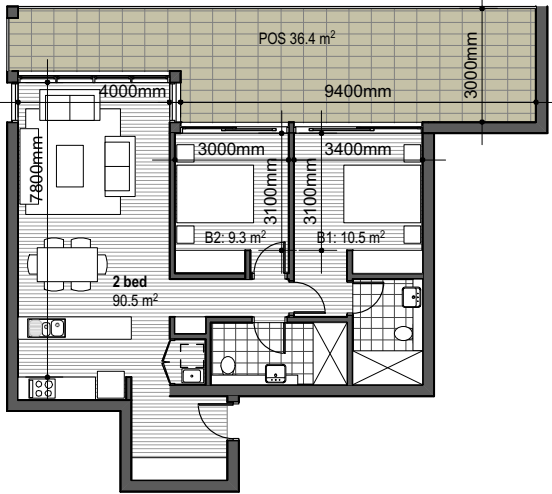
SEPP 65 COMPLIANCE - UNIT LAYOUTS



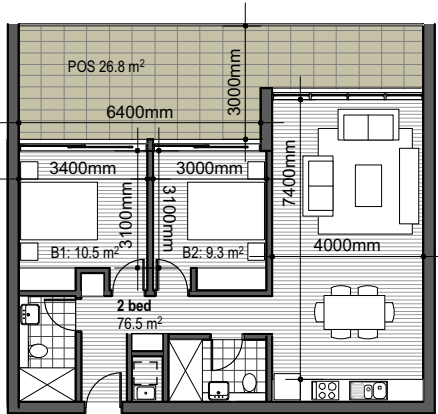
2 bedroom type a
corner, north and east facing
levels 02-08



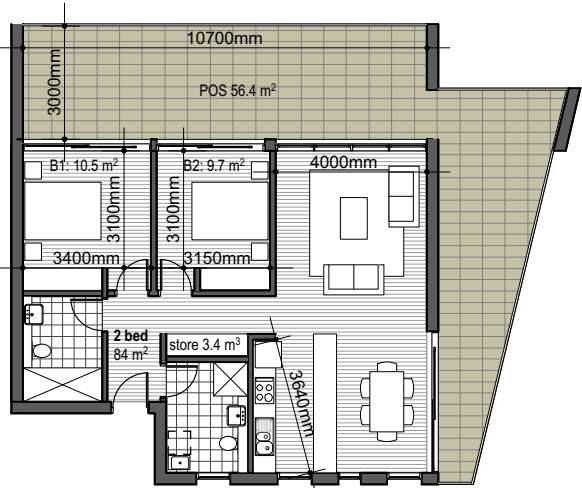
2 bedroom type b
corner, north and west facing
levels 02-08



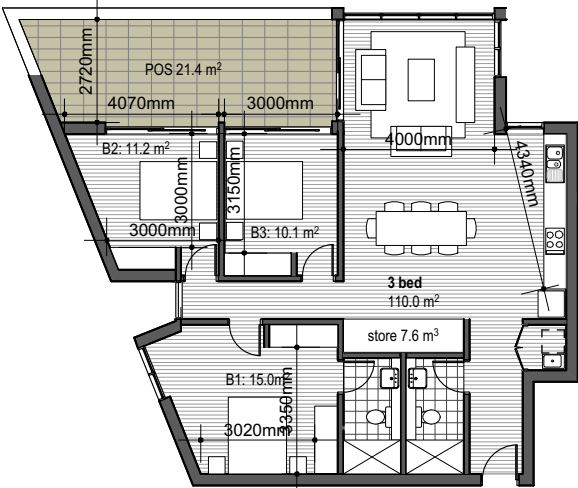
2 bedroom type c
single aspect, south-east facing
levels 02-13



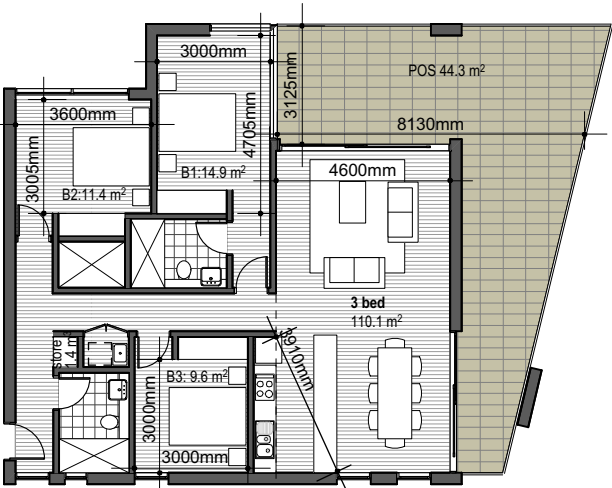
2 bedroom type d
single aspect, south-east facing
levels 02-10



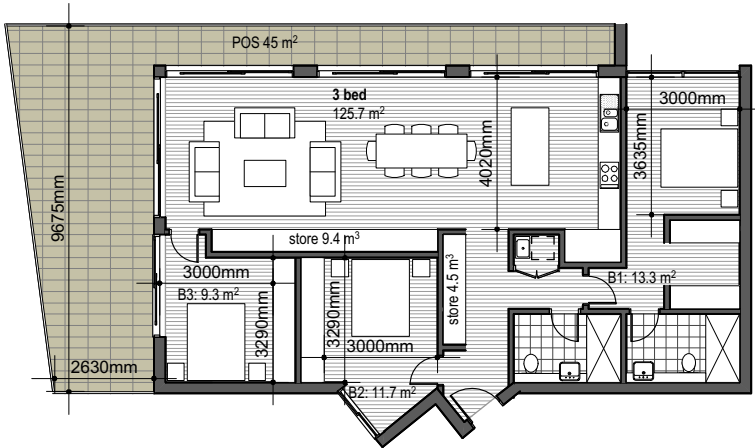
2 bedroom type e
corner, west, south and east facing
levels 11-13



3 bedroom type a
corner, west and south facing
levels 02-08

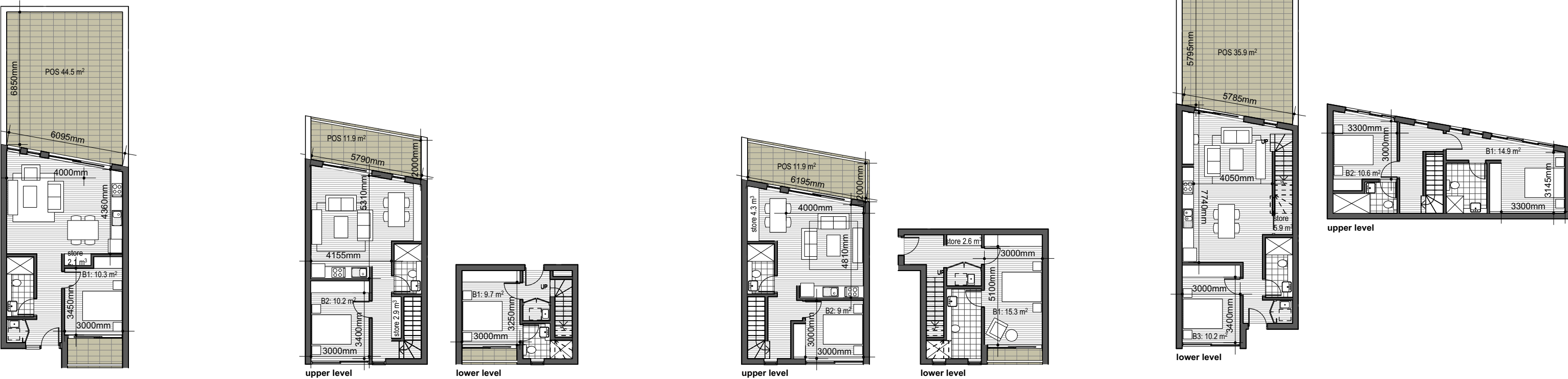


3 bedroom type b
corner, west, south and east facing
levels 02-09



3 bedroom type c
corner south-east and north-east facing
levels 02-13

SEPP 65 COMPLIANCE - UNIT LAYOUTS



1 bedroom type b
cross through, east and west facing
55 m²

2 bedroom type f
cross over / through, east and west facing
76 m²

2 bedroom type g
cross over / through, east and west facing
86 m²

3 bedroom type d
cross over / through, east and west facing
110 m²

FSR + YIELD ANALYSIS



SITE AREA

Existing Site Area:	6330 sqm
RMS Road Widening Acquisition:	565 sqm
Site Area After Road Widening:	5765 sqm

FSR + YIELD

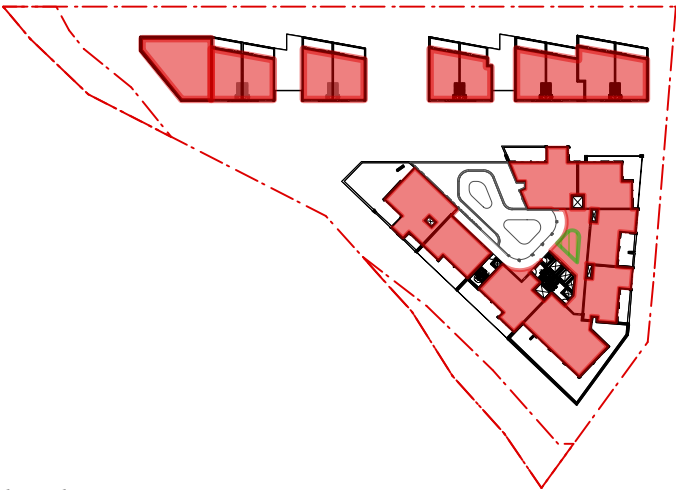
Level	Total GFA (sqm. approx)	Commercial GFA (sqm. approx)	No. Dwellings
00	1707	820	10
01	1712	1000	
02	1526	150	18
03	829		8
04	845		8
05	829		8
06	845		8
07	829		8
08	845		8
09	512		5
10	403		4
11	403		4
12	403		4
13	403		4
Total	12091	1970	97
FSR	2.10 : 1		



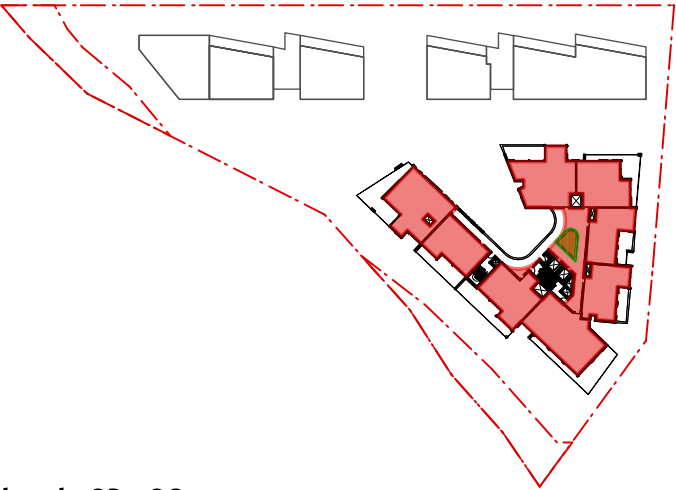
level 00



level 01

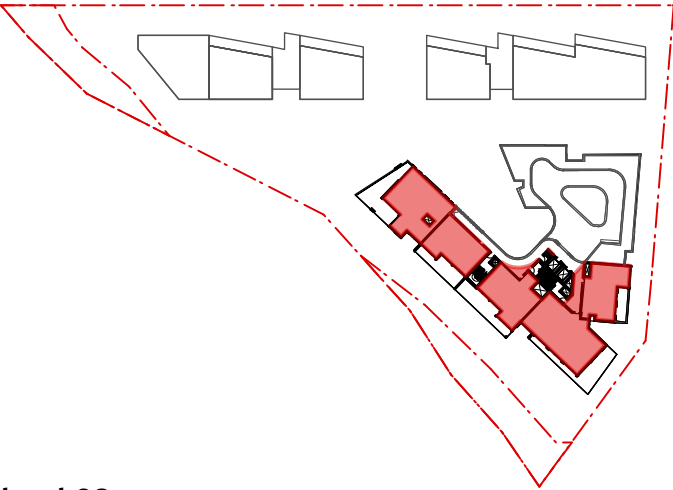


level 02

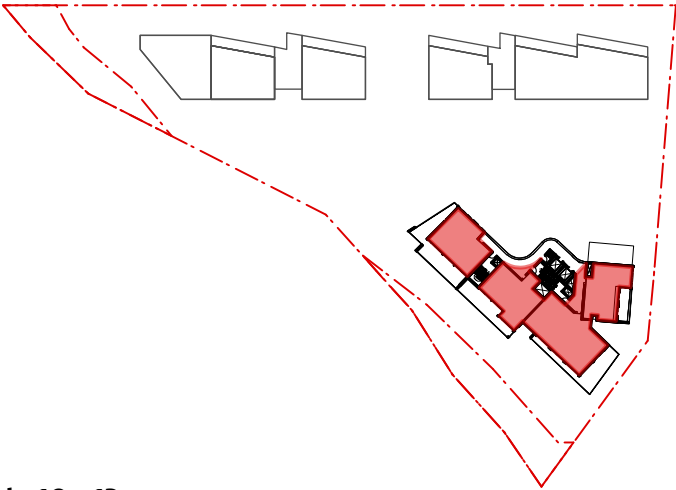


levels 03 - 08

Note: planter on every second level
void above on alternate levels



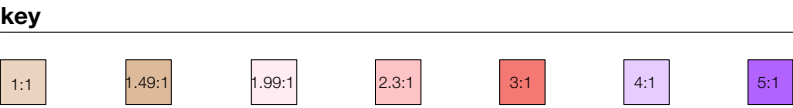
level 09



levels 10 - 13

PERMISSIBLE FSR ON ADJOINING SITES

- 4.0:1 sites the same distance from the station have allowable FSRs of up to 4:1
- 2.3:1 sites further from the station have allowable FSRs of up to 2.3:1
- 3.0:1 adjacent site has allowable FSR of 3:1
- subject site



COMPARABLE SITES

